

ORIGINAL

55.

DIVISION OF CONSUMER ADVOCACY  
Department of Commerce and  
Consumer Affairs  
335 Merchant Street, Room 326  
Honolulu, Hawaii 96813  
Telephone: (808) 586-2800

BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF HAWAII

In the Matter of the Application of )  
MAUI ELECTRIC COMPANY, LIMITED )  
For Approval of Rate Increases and Revised )  
Rate Schedules. )

DOCKET NO. 2006-0387

**DIVISION OF CONSUMER ADVOCACY'S**  
**INFORMATION REQUESTS**

Pursuant to the agreed upon Schedule of Proceeding modified in Order No. 23496, the Division of Consumer Advocacy submits its **THIRD SUBMISSION OF INFORMATION REQUESTS** in the above docketed matter. In addition, based on an informal agreement among the parties, the following submissions of Information Requests were informally filed with the Applicant on the following dates:

First Submission April 2, 2007

Second Submission May 21, 2007

A copy of the above submissions is provided for the Commission's records.

DATED: Honolulu, Hawaii, June 22, 2007.

Respectfully submitted,

By Cheryl S. Kikuta  
CHERYL S. KIKUTA  
Utilities Administrator  
DIVISION OF CONSUMER ADVOCACY

PUBLIC UTILITIES  
COMMISSION

2007 JUN 22 P 4:30

FILED

3C  
SKd/LK  
BC  
Rvd/jm  
Jl/CL  
LYK/BP  
BgK

KIT

**DOCKET NO. 2006-0387**

**MAUI ELECTRIC COMPANY, LIMITED**

**THIRD SUBMISSION OF INFORMATION REQUESTS**

**INSTRUCTIONS**

In order to expedite and facilitate the Consumer Advocate's review and analysis in the above matter, the following is requested:

1. For each response, the Company should identify the person who is responsible for preparing the response as well as the witness who will be responsible for sponsoring the response should there be an evidentiary hearing;
2. Unless otherwise specifically requested, for applicable schedules or workpapers, the Company should provide hard copies of each schedule or workpaper together with one copy of each such schedule or workpaper on electronic media in a mutually agreeable format (e.g., Excel and Quattro Pro, to name two examples); and
3. When an information request makes reference to specific documentation used by the Company to support its response, it is not intended that the response be limited to just the specific document referenced in the request. The response should include any non-privileged memoranda, internal or external studies, assumptions, Company instructions, or any other relevant authoritative source which the Company used.
4. Should the Company claim that any information is not discoverable for any reason:
  - a. State all claimed privileges and objections to disclosure;

- b. State all facts and reasons supporting each claimed privilege and objection;
- c. State under what conditions the Company is willing to permit disclosure to the Consumer Advocate (e.g., protective agreement, review at business offices, etc.); and
- d. If the Company claims that a written document or electronic file is not discoverable, besides complying with subparagraphs 4(a-c), identify each document or electronic file, or portions thereof, that the Company claims are privileged or will not be disclosed, including the title or subject matter, the date, the author(s) and the addressee(s).

**DOCKET NO. 2006-0387**

**MAUI ELECTRIC COMPANY, LIMITED**

**THIRD SUBMISSION OF INFORMATION REQUESTS**

**General Information Requests.**

CA-IR-199      **Ref:    IRP-3 Filing in Docket No. 04-0077, pages 7-43**  
**(DG Assessment Study).**

According to the Company's IRP filing, "MECO is currently undertaking a DG Assessment Study that will characterize the amount of DG reasonably possible for the timeframe between 2007 and 2014." Please provide a complete copy of this study when it becomes available.

**Witness T-2 Ms. Ide.**

CA-IR-200      **Ref:    Responses to CA-IR-40 and CA-IR-42 (Forecast**  
**Documentation).**

Please provide the complete copies of all available documentation associated with the current forecast cycle that is underway now, including but not limited to the most current equivalent version of each form of attachment that was produced in development of the July 2006 Forecast (and supplied in response to CA-IR-40). It is recognized that this information may be preliminary and subject to change upon finalization, as noted in CA-IR-42, part (a).

CA-IR-201

**Ref: Response to CA-IR-47 (Renaissance Wailea Beach Resort).**

According to the response, "The expected demolition of the Renaissance Wailea Beach Resort did not materialize at the end of 2006, as expected. This delayed demolition has inflated 2007 year-to-date sales by 1.7 GWH over the forecast." Please provide the following information:

- a. Maui hotel sector actual sales by account by month and by rate schedule for each month of 2006 and 2007, to-date.
- b. A breakdown of projected Maui hotel sector sales by account and by month for test year 2007.
- c. Explain known reasons for any significant differences between projected (part (b)) and actual (part (a)) sales for individual accounts.

CA-IR-202

**Ref: MECO-203, page 7 (Maui Division Schedule P).**

Please provide the following information:

- a. Actual monthly sales volumes for each Maui Schedule P customer for 2006 and each available month of 2007, to-date.
- b. Test year projected monthly sales volumes for each of the 121 forecasted Maui Schedule P customers.

- c. An explanation of known causes for each individually significant difference between actual (part (a)) and projected (part (b)) sales to individual customers in the test year.

CA-IR-203

**Ref: MECO-204, page 7 (Lanai Division Schedule P).**

Please provide the following information:

- a. Actual monthly sales volumes for each Lanai Schedule P customer for 2006 and each available month of 2007, to-date.
- b. Test year projected monthly sales volumes for each of the 3 forecasted Lanai Schedule P customers.
- c. An explanation of known causes for each individually significant difference between actual (part (a)) and projected (part (b)) sales to individual customers in the test year.

CA-IR-204

**Ref: MECO-205, page 7 (Molokai Division Schedule P).**

Please provide the following information:

- a. Actual monthly sales volumes for each Molokai Schedule P customer for 2006 and each available month of 2007, to-date.
- b. Test year projected monthly sales volumes for each of the 14 forecasted Molokai Schedule P customers.

- c. An explanation of known causes for each individually significant difference between actual (part (a)) and projected (part (b)) sales to individual customers in the test year.

CA-IR-205

**Ref: MECO-206; Response to CA-IR-44 (CHP Sales Impacts).**

Please provide the following additional information:

- a. Please state the assumptions and provide the underlying calculations supporting the originally filed Maui CHP forecast adjustments in MECO-206.
- b. Please state the revised assumptions and provide the underlying calculations supporting the revised Maui CHP forecast adjustments in CA-IR-44, Attachment 1.
- c. Provide documentation associated with the customer's expressed "plans" and explain why changes are anticipated "by the third quarter of this year".

**Witness T-3 Mr. Young.**

CA-IR-206

**Ref: MECO T-3, page 5 (Rider Customers).**

Please explain whether or not MECO intends to update the rate case input values to reflect changes in rider participation for the test period and, if so, provide supporting calculations and documentation for each such change at this time so the CA has an opportunity to review and respond to same.

**Witness T-4 Mr. Sakuda.**

CA-IR-207

**Ref: MECO-WP-402, Response to CA-IR-54.**

The response to CA-IR-54 indicates that the supplier mix of fuel delivered to MECO is given in MECO-WP-402, page 1. Please provide a copy of confidential workpaper MECO-WP-402, pages 1 through 3.

CA-IR-208

**Ref: MECO-WP-404, page 13.**

MECO-WP-404, page 13 contains the Plant Summary input to the production simulation.

- a. Please identify the types of data represented by the columns labeled X31, X32, X33, X34, and X35.
- b. Please explain and provide supporting documentation for the data listed under the columns labeled X31, X32, X33, X34, and X35.

CA-IR-209

**Ref: MECO-WP-404, page 10.**

MECO-WP-404, page 10 indicates that the production simulation was modeled using the Monte Carlo technique. Please provide the number of Monte Carlo iterations that were used in the production simulation.



CA-IR-210

**Ref: MECO-WP-404, pages 18 – 19.**

MECO-WP-404, pages 18 – 19 contains the Thermal Performance Summary input to the Company's direct Testimony production simulation. This summary indicates that the Company modeled each generating unit using 4 capacity states.

- a. Please explain the significance and purpose of modeling 4 capacity states.
- b. Please explain how capacity states 2 and 3 were determined, including all calculations and supporting documentation.

CA-IR-211

**Ref: Response to CA-IR-68, T-4, page 28 lines 17-24, MECO-WP-404, page 19.**

The referenced testimony and the response to CA-IR-68 indicate that each generating unit's maintenance outage rate ("MOR") is allocated using the AUTOMNT algorithm in P-Month and the resulting outage becomes a thermal maintenance outage. MECO-WP-404, page 19 indicates that MECO generating units Kahului 3 and 4 each have a MOR of 0.517%. Please explain why the MOR for Kahului 3 and 4 did not become allocated to a thermal maintenance outage listed on the response to CA-IR-68, page 2.

**Witness T-5 Mr. Ribao.**

CA-IR-212

**Ref: MECO IRP-3 Filing in Docket No. 04-0077, pages 7-23 (Waena Station).**

According to the Company's IRP filing, "MECO intends to lease to the non-regulated subsidiary of HECO the portion of the Waena Generating Station lands for the plant, with lease proceeds credited to MECO ratepayers." Please provide the following information:

- a. State all reasons why full inclusion of Waena site investment in PHFFU in this rate case docket is reasonable, given the planned non-regulated use of a portion of the plant site.
- b. How does MECO intend to establish the lease terms and rental rates? Please provide calculations for the anticipated monthly rental amounts.
- c. If the biodiesel plant is to be built "by 2009", at what approximate date does MECO intend to commence the lease term so as to accommodate construction by BlueEarth?
- d. Explain how the "lease proceeds" would be "credited to MECO ratepayers" if the lease commenced between rate case test periods, given that the Waena investment is included within Plant Held for Future Use in the pending rate case filing.

- e. Provide a drawing of the Waena station site plan, indicating the areas intended to be used for each planned generating unit and for the biofuels plant.

CA-IR-213

**Ref: IRP-3 Filing in Docket No. 04-0077, pages 1-13 (Maalaea Unit 13).**

According to the Company's IRP filing, "MECO plans to implement one or more of the following mitigation measures, as necessary, during this period in order to mitigate the potential impact the reserve capacity shortfall may have on system reliability. Mitigation measures include..." and a list of "measures" are provided. Please provide the following information:

- a. Explain whether and how the Unit Overhaul Schedule was changed in order to "optimize", indicating the impacts upon each overhaul.
- b. Identify and provide cost impacts associated with each of the "Deviation from Standard Maintenance Practice[s]" that was employed.
- c. State whether "Standard" maintenance practices were assumed in development of test year normalized production maintenance expenses.
- d. If your response to part (c) of this information request is negative, please describe and quantify the additional

adjustments that would be required to reflect fully normalized "standard" maintenance practices.

- e. Quantify the monthly usage of Hana Standby Generators that has occurred.
- f. Quantify the amounts of additional supplemental power from HC&S that was acquired.
- g. Identify and quantify the estimated MWH associated with each "request for voluntary customer curtailment of demand" that has occurred.

CA-IR-214

**Ref: MECO IRP-3 Filing in Docket No. 04-0077, pages 1-24 (Maalaea Unit 13).**

According to the Company's IRP filing, "MECO projects that Maalaea Unit 13 will be unavailable for service to the system until approximately June or July 2007." Please provide the following:

- a. description of the current status and estimated completion of all work on the unit;
- b. monthly expenditures, by NARUC account, to repair and/or improve the unit; and
- c. total anticipated costs by account to complete all planned work, net of any insurance proceeds that are anticipated.

CA-IR-215

**Ref: Response to CA-IR-104 (Emission Fees).**

According to this response, "The 2007 emission fee \$/ton (\$55.92) was derived by escalating the 2005 actual rate (\$53.23) by 2.5% per year....Because emission fees have been paid for the last three years (2004, 2005 and 2006), MECO does not believe historical waivers should be considered." Please provide the following:

- a. Copies of the latest available actual filing of information with the DOH to determine MECO emission fees.
- b. Copies of the latest actual payment documentation (invoices or remittance advice data) for emission fees, indicating the last \$/ton value actually paid.
- c. All information in the possession of MECO to support a conclusion that emission fee waivers granted MECO in 2001, 2003 and 2004 are not indicative of the possibility of future waivers for 2007 or 2008 or 2009.

CA-IR-216

**Ref: Response to CA-IR-86 (Lube Oil Expense).**

Please provide the following additional information:

- a. Calculations and additional data used to translate unit prices shown in Attachment 3 to the unit prices reflected in MECO-WP-509-a for each Division.

- b. Calculations that would be needed to translate unit prices shown in Attachment 4 into updated unit prices to reflect current price levels in MECO-WP-509-a for each Division.

CA-IR-217

**Ref: MECO-WP-509-a (Lube Oil Usage).**

Please provide the following information regarding oil usage assumed for the test year:

- a. Explain whether annual oil usage is a function of operating hours, kwh output or some other operational statistic.
- b. Provide for each category of lube oil the historical operational statistic(s) believed to be most directly correlated to lube oil usage.
- c. Provide, based upon test year system simulation, the normalized test year operational statistics for each category of generation needed to determine lube oil usage rates.
- d. Provide any additional information necessary to document how MECO determined the test year "Annual oil usage" for each type of lube oil.
- e. Explain and quantify any additional adjustment that is required to completely synchronize annual lube oil usage values with the system generation simulation for the test year.

- f. Explain how the "oil changes" in WP-509-a correlate with the "2007 Overhaul Normalization" set forth at MECO-WP-505 and provide and quantify any additional adjustment that is required to completely synchronize annual lube oil changes with the normalized overhaul schedule for the test year.

CA-IR-218

**Ref: MECO-501, page 3; MECO IRP-3 Filing in Docket No. 04-0077, pages 5-19 Table 5.6-1 (Maalaea Units 17, 18, and 19).**

According to the Company's IRP filing the NTL and Reserve Gross Rating for Maalaea Units 17, 18, and 19 are 60.4MW, while MECO-501 lists this resource at 58.0 Gross MW. Please provide the following:

- a. Which is the correct rating and why are they different in these two documents?
- b. Please provide copies of any output test data supportive of your response to part (a) of this information request.

CA-IR-219

**Ref: MECO-WP-505, page 1; Response to CA-IR-81, Attachment 3, page 4 (Mitsubishi Actual Overhaul Expenses).**

The Attachment 3 document has boxed areas around "TOP" and "MAJOR" historical overhaul expenditure amounts. Please provide the following:

- a. Identify the scope of work differences associated with Top versus Major overhauls.

- b. Explain and quantify how the historical data for each year shown was combined or averaged to derive the input amounts for each unit, M10 through M13 on WP-505.
- c. Explain how the 12,000 hour maintenance frequency in WP-505 was determined for these units, with specific reference into the relevant pages of Attachment 2, pages 29-56, which appears to document various maintenance intervals for specific equipment components.

CA-IR-220

**Ref: MECO-WP-505, page 1; Response to CA-IR-81, Attachment 3, page 5 (LM 2500 Actual Overhaul Expenses).**

The Attachment 3 document has boxed areas around certain recorded costs, with only some of the amounts tying directly into the adjustment shown in WP-505. Please provide the following:

- a. Identify the scope of work differences associated with historical LM 2500 overhauls, explaining why costs range from a low of \$545,007 for M-17 in 2004 to a high of \$1.9 million for M-14 in 2005 and indicating which prior overhauls were hot section replacements, power turbine overhauls or some other scopes.
- b. What were the cumulative operating hours at each historical overhaul shown for M14, M16, M-17 and M-19 on Attachment 3, page 5 and how do such intervals (hours



between overhauls) compare with the recommended prospective maintenance frequencies in WP-505?

- c. Explain the scope of work assumed to be a "normal" overhaul at 50,000 hours and a "Hot Sect Repl" at 16,000 hours for each CT in WP-505.
- d. Explain how information in CA-IR-81, Attachment 2 was used to determine the proposed maintenance intervals, with particular reference to page 58 of that Attachment.
- e. Explain and provide supporting calculations for the 52,560 steam turbine interval and \$71,550 cost, referencing the information within CA-IR-81 that was used in support of each value.
- f. Provide operating hours and expenses for each historical M15 steam turbine overhaul performed to-date.

CA-IR-221

**Ref: MECO-WP-505 (2007 Overhaul Normalization).**

The Company's adjustment for Maui Division reflects much lower "2007 Norm (\$)" overhaul activity levels than were included in the "2007 Budget." Please provide the following information:

- a. Explain whether the Company's planned overhauls for 2008 and subsequent years include the relatively infrequent EMD, Cooper and Colt overhauls as reflected in the normalization.

- b. Explain whether the Company's planned overhauls for 2008 and subsequent years include the reduced frequency Mitsubishi overhauls every 2 – 4 years, as reflected in the normalization (based upon annual run hours of 3,100 to 6,100 as shown in column A).
- c. Explain whether the Maalaea combustion turbine planned overhauls for 2008 and subsequent years include the reduced frequency hot section and full overhauls every 2-5 years, as reflected in the normalization (based upon annual run hours of 7,000 to 8,600 as shown in column A).
- d. Provide a complete copy of the Company's most current available long term future overhaul schedule for the Maui Division and explain how such forecast compares to the responses provided to parts (a) through (c) of this information request.
- e. To what extent was the higher than "normalized" overhaul activity level anticipated in the "2007 Budget" a result of deferred overhaul activity under the prior mode of operations, before commercial availability of M18 and Kaheawa Wind Power?

**Ref: MECO-WP-505; Response to CA-IR-92, Attachment 4 (2007 Overhaul Normalization).**

The Company's adjustment for Maui Division reflects much lower "2007 Norm (\$)" overhaul activity levels than were included in the "2007 Budget". Please provide the following:

- a. Explain all reasons why the CA-IR-92, Attachment 4 MGD Maalaea Overhaul hours that are not normalized can be reasonable for inclusion in ongoing labor expenses for ratemaking purposes, when the corresponding overhaul non-labor costs have been determined to not be "normal" and are restated in the adjustment at MECO-WP-505.
- b. Please explain whether and when the Company intends to reduce MGD staffing levels so as to reflect declining utilization of the diesel generators with M18 and Kaheawa now in service and the corresponding reduction in overhaul frequency that is now anticipated.
- c. Please describe the details of any plans MECO has to retrain and/or transfer MGD personnel to other areas of the Company in light of the reduced diesel unit normalized utilization that is reflected in MECO-WP-505.
- d. Provide complete copies of all studies, reports, analyses, workpapers, projections and other documents prepared by or for MECO since January 1, 2006 to evaluate the staffing requirements at Maalaea.

CA-IR-223

**Ref: MECO T-5, page 38 (Grand Wailea CHP).**

According to Mr. Ribao, "...the CHP unit at the Grand Wailea ha(s) added to the responsibilities of this [MGE] group." Please provide the following:

- a. Explain whether the CHP unit at the Grand Wailea is a regulated, rate base included unit that is owned by MECO, or not.
- b. Provide a summary of test year revenues, labor expenses, non-labor expenses and rate base impacts associated with the CHP unit at the Grand Wailea by NARUC account.
- c. Are any production departments or other departmental labor hours chargeable to the owners of the CHP unit or to MECO below-the-line accounts?
- d. Please identify and describe any Commission applications, review or decisions rendered in connection with the CHP unit at the Grand Wailea.

CA-IR-224

**Ref: Response to CA-IR-96, Attachment 1 (MGA Overtime).**

Please provide the following:

- a. Explain the reasons why MGA Overtime is projected at much higher levels than any prior years 2001 through 2006.
- b. To the extent MGA overtime is compensated in the test year, through application of standard labor rates to the hours

shown, what if any ratemaking adjustment would be appropriate to normalize MGA overtime costs?

- c. Why has the addition of the Renewable Energy Engineer position, as noted by T-5 at page 37, not had the effect of reducing projected MGA overtime?

CA-IR-225

**Ref: Response to CA-IR-82 (Expense by NARUC Comparisons).**

Please explain the reasons for significant differences between "Budget 2007" and prior years' expense levels for each of the following NARUC Accounts, indicating whether any (identified) MECO budget or MECO normalization adjustments impact the budgeted expense level and apparent variance relative to historical spending:

- a. Account 511 Maintenance of Structures non-labor \$338,950.
- b. Account 512 Maintenance of Boiler & FO Plant labor \$705,763.
- c. Account 512 Maintenance of Boiler & FO Plant Non-labor \$859,295.
- d. Account 553 Maintenance Electric Plant – Other Non-labor \$7,737,538.
- e. Account 553M Maintenance Electric Plant – Other Prod-Molokai Non-labor \$836,116.

CA-IR-226

**Ref: MECO-WP-504-f; Response to CA-IR-100 (Kahalui Plant Structural Maintenance).**

Please provide the following:

- a. Analysis of KPP Structural Maintenance in the form presented for MPP in WP-504-f.
- b. Considering the data set forth in CA-IR-100 regarding the KPP berm wall and bulk fuel tank inspection/repairs, what normalizing adjustment would be required if the same logic were followed for KPP that was employed at MPP?

**Witness T-6 Mr. Herrera.**

CA-IR-227

**Ref: MECO T-6, pages 2, 8, 18 and 30, MECO-622, and Response to CA-IR-120 (Vegetation Management).**

The referenced testimony and MECO-622 only contain general references to vegetation management expense, including statements that 2005 and 2006 levels were historically low. MECO's response to CA-IR-120 provides contractor studies containing "raw" rainfall data and refers to the "direct correlation between seasonal rainfall and vegetation growth." Please provide the following:

- a. Have any studies or analyses been prepared by or for MECO that assess the direct correlation between rainfall on Maui, Lanai and/or Molokai and the level of vegetation management costs incurred by MECO?

- b. If the response to part (a) above is affirmative, please provide a copy of such studies or analyses.
- c. In preparing the vegetation forecast for the 2007 test year, did the forecast consider then recent (late 2005 or early 2006) rainfall statistics?
  - 1. If so, please explain how the recent actual rainfall levels were considered and provide a copy of any forecast documentation supporting the test year forecast.
  - 2. If not, why not?
- d. In preparing the vegetation forecast for the 2007 test year, did the forecast consider "normal" levels of rainfall statistics?
  - 1. If so, please explain how normal rainfall levels were considered and provide a copy of any forecast documentation supporting the test year forecast.
  - 2. If not, why not?

CA-IR-228

**Ref: MECO Response to CA-IR-120 (Vegetation Management).**

Referring to pages 2-8 of the response to CA-IR-120, please provide the following:

- a. How does MECO utilize this rainfall data to adjust and prioritize its vegetation management schedule? Please explain.

- b. Please identify the source(s) of the rainfall data (actuals and normals), specifically noting whether the data was obtained or continues to be available from public sources (e.g., NOAA publications).
- c. In calendar years 2004 through 2006, there are multiple instances where normal rainfall data is supplied for a particular location but actual rainfall data was not presented. Please explain why data was missing from these documents.

CA-IR-229

**Ref: MECO Response to CA-IR-122 (Vegetation Management).**

As indicated in CA-IR-122, MECO-620A refers to reduced vegetation management expense in 2005 and 2006 as being below budget. The data supplied in response to CA-IR-122(b) indicates that the number of vegetation outages caused by "Trees and Branches" in these below budget years is the highest (2005) and third highest (2006) during this eight-year period. Similarly, total vegetation outages ("Trees and Branches" plus "High Winds") represent the second (2005) and fourth (2006) highest years. Please provide the following:

- a. Please explain how the relatively high outage counts in 2005 and 2006 correlate with reduced vegetation expense.
- b. Please explain how the relatively high outage counts in 2005 and 2006 correlate with actual rainfall statistics.



- c. As a result of increasing vegetation management expense in the 2007 test year forecast, did the Company also reduce maintenance expense attributable to vegetation caused outages? Please explain.
  - 1. If so, please provide the amount and supporting calculations associated with the reduced vegetation outage maintenance.
  - 2. If not, why not?

CA-IR-230

**Ref: MECO Responses to CA-IR-106 and CA-IR-107 (Steel Poles).**

Please provide the following:

- a. When did MECO commence installing "second generation steel poles" as discussed in the response to CA-IR-107(a)?
- b. Referring to the response to part (e) of CA-IR-106, does the steel pole count of 416, by vintage year, represent only "first generation steel poles" or a combination of first and second generation poles? Please explain.
- c. Referring to the response to part (e) of CA-IR-106, has MECO not installed any steel poles since calendar year 2000? Please explain and update the response to CA-IR-106, as necessary.

CA-IR-231

**Ref: MECO Response to CA-IR-107 (Steel Poles).**

In response to part (f) of CA-IR-107, the Company indicates that HECO uses a different steel pole finish process than MECO. HECO purchases unfinished, galvanized poles and then contracts to have the finish applied before installation, whereas MECO purchases steel poles finished by the manufacturer at a lower cost.

Please provide the following:

- a. Has MECO investigated the relative cost of adopting HECO's finishing process, in light of HECO's apparent success at mitigating the type of corrosion experienced by MECO? Please explain.
- b. How much more expensive is HECO's finishing process as compared to MECO's on a per pole basis? Please explain and show comparable numbers.
- c. How much more expensive are the "second generation" Valmont poles now being purchased by MECO, in relation to the cost of the "first generation" poles? Please explain and show comparable numbers.

CA-IR-232

**Ref: MECO Responses to CA-IR-112 and CA-IR-133 (T&D Staffing).**

In response to CA-IR-133(b), MECO identified two T&D vacancies that were in the recruitment process. As of June 8, 2007, the response to CA-IR-112 (Attachment A, page 7) indicates that the

actual T&D employee count was 104; while the T&D 2007 test year forecast was based on full staffing of 111 employees. Please provide the following:

- a. Please explain why part (b) of CA-IR-133 only identified two (2) T&D vacancies (i.e., in recruitment) when the response to CA-IR-112 appears to indicate that there are seven (7) unfilled T&D positions.
- b. Does MECO distinguish between employee vacancies and unfilled positions? Please explain.
- c. Please explain why MECO believes that it is appropriate for the T&D 2007 test year forecast to assume full staffing of 111 employees throughout the year when the Company had not yet achieved that level as of June 8, 2007.

CA-IR-233

**Ref: MECO Response to CA-IR-113 (T&D Labor Requirements).**

In response to part (d) of CA-IR-113, MECO states, in part: "These blanket projects contain labor demands as forecasted by Accounting and Engineering based on historic results and trending." Please provide the following:

- a. Please provide specific examples of how Accounting and Engineering forecast labor demands for "blanket projects."
- b. Referring to the response to part (a) above, please demonstrate how the forecasted blanket project labor

demands are integrated with the labor input sheets provided by witness T-6 in response to CA-IR-1.

- c. Can the response of witness T-6 to CA-IR-1 (see Attachment 3) be expanded to include, for each RA, the labor demands associated with blanket projects? Please explain.
- d. Referring to part (c) above, please recast or revise the response of witness T-6 to CA-IR-1 (see Attachment 3) to include, for each RA, the labor demands associated with blanket projects.

CA-IR-234

**Ref: MECO Response to CA-IR-113 (T&D Labor Requirements).**

In response to part (d) of CA-IR-113, MECO states, in part: "Jobs initiated in one year and completed in a subsequent year are generally given unique project numbers outside of the blankets and the labor demands are estimated by the individual project manager utilizing their estimating software, which assesses labor demand estimates associated with components to be installed in the project." Please provide the following:

- a. Please provide specific examples of how individual project managers forecast labor demands for non-blanket capital projects.

- b. Please demonstrate how the non-blanket capital project labor demands are integrated with the labor input sheets provided by witness T-6 in response to CA-IR-1.
- c. Can the response of witness T-6 to CA-IR-1 (see Attachment 3) be expanded to include, for each RA, the labor demands associated with non-blanket capital projects? Please explain.
- d. Referring to part (c) above, please recast or revise the response of witness T-6 to CA-IR-1 (see Attachment 3) to include, for each RA, the labor demands associated with non-blanket capital projects.

CA-IR-235

**Ref: MECO Response to CA-IR-113 (T&D Labor Requirements).**

In response to part (d) of CA-IR-113, MECO states, in part: "In general, due to the complexity of the hundreds of different tasks, the uniqueness of each and every job and task, and the diversity of the equipment T&D is responsible for, the labor demands are not based on specific tasks or work/systems requirements, but rather on historical precedence and identified desired outcomes for the T&D equipment mix." Please provide the following:

- a. Please further explain the reference to "historical precedence" including examples of how such methodology was employed in the O&M labor forecast (e.g., historical

average labors hours per inspection times forecast number of inspections).

- b. Please further explain the reference to "identified desired outcomes" including examples of how such methodology was employed in the O&M labor forecast.
- c. Referring to part (b) above, please explain how the "identified desired outcomes" were determined.

CA-IR-236

**Ref: MECO Response to CA-IR-124 (T&D Labor).**

In response to CA-IR-124, MECO provided a historical comparison of straight time and overtime hours (Attachment 1) and the composite O&M/capital ratio (Attachment 2) with the 2007 test year forecast for both T&D and engineering. Please provide the following:

- a. Referring to Attachment 1, please explain why the Engineering overtime hours are significantly higher in the 2007 test year forecast even though straight time hours are also higher.
- b. Referring to Attachment 2, please explain why and provide the basis for the T&D O&M percentage being materially higher in the 2007 test year forecast relative to recent historical experience.

**Ref: MECO T-6, page 40 and Response to CA-IR-131 (One Call).**

At page 40, MECO T-6 identifies \$60,249 of additional One Call related labor and overhead costs included in the 2007 test year forecast (see MECO-WP-608B, page 1, and CA-IR-2, Attachment 6F page 10). The 2007 test year forecast also includes \$22,850 of non-labor costs. Please provide the following:

- a. Since the One Call legislation went into effect on January 1, 2006, has MECO been providing One Call support throughout 2006 and 2007? Please explain.
- b. Prior to January 1, 2006, did MECO field requests from excavators and contractors about marking the location of MECO's buried facilities? Please explain.
- c. Referring to the response to parts (a) and (b) above, please explain why it was necessary for MECO to increase its 2007 test year labor and non-labor forecast by about \$83,000 due to the implementation of One Call.
- d. Part (b) of the response to CA-IR-131 refers to "One Call Concepts, Inc." as the calling party. Who is "One Call Concepts, Inc." and what is their role in the implementation and application of the One Call concept?
- e. Has MECO maintained any data or statistical information regarding the number of calls for buried facility "locates"?

before and after the implementation of One Call? Please explain.

- f. Referring to part (e) above, please provide the identified statistical data for the period 2005 through the present.

CA-IR-238

**Ref: MECO T-6, page 40 and Response to CA-IR-131 (One Call).**

At page 40, MECO T-6 identifies \$60,249 of additional One Call related labor and overhead costs included in the 2007 test year forecast (see MECO-WP-608B, page 1, and CA-IR-2, Attachment 6F page 10). The 2007 test year forecast also includes \$22,850 of non-labor costs. Please provide the following:

- a. Prior to the implementation of One Call, did the Company experience occasional or frequent damage to its buried facilities because excavators and contractors failed to routinely contact MECO to mark its buried facilities prior to commencing work? Please explain.
- b. Since the implementation of One Call, has the Company experienced any reduction in the frequency of damage to its buried facilities because excavators and contractors have increasingly contacted MECO to mark its buried facilities prior to commencing work? Please explain.
- c. If the response to part (b) above is affirmative, does MECO's 2007 test year forecast recognize lower maintenance



expense due to the reduced incidence of excavator or contractor damage? Please explain.

1. If the response to part (c) above is affirmative, please provide a quantification of the expense reduction associated with the test year forecast.
2. If the response to part (c) above is negative, please explain why MECO believes that the implementation of One Call should not be expected to reasonably result in reduced test year repair and maintenance costs.

CA-IR-239

**Ref: MECO T-6, page 40 and Response to CA-IR-132 (One Call).**

According to the referenced response, the \$22,850 non-labor expense included in the 2007 test year forecast for One Call was based on a different assumed cost sharing methodology than actually implemented by the Commission. Please provide the following:

- a. Please provide the amount actually billed to MECO for its share of the January-June 2007 One Call Center administration and operations cost.
- b. Does the \$3,360 MECO paid to the Commission for the One Call Center for the period July-December 2006 represent the current cost sharing methodology? Please explain.

- c. Please explain why MECO believes that the \$22,850 forecast estimate continues to represent a reasonable level of One Call non-labor costs.

CA-IR-240

**Ref: MECO T-6 Responses to CA-IR-2 and CA-IR-129 (EMS Project).**

After reviewing the response to CA-IR-129, it remains unclear how the workpapers supplied in response to CA-IR-2, Attachment 6E (pages 38-47) support the new EMS amounts set forth on CA-IR-2, Attachment 5 (page 3, items 135-137). Please provide the following:

- a. Please provide additional documentation showing how the forecast amounts set forth on page 3 of Attachment 5 were derived.
- b. Referring to part (a) above, how were the amounts contained in the documents supplied in Attachment 6E adjusted or revised to derive the forecast amounts on page 3 of Attachment 5? Please explain and show all calculations.

CA-IR-241

**Ref: MECO-618 and Response to CA-IR-136 (T&D Inventory).**

In explaining why the December 2006 inventory balance is \$1.2 million higher than the balance at December 2005, CA-IR-136 indicates, in part, that a "material share of the increase is due to electrical cable and termination components, which have a lead

time of about four months and six months, respectively. This lead time forces MECO to order materials in anticipation of projects before the final schedule for these projects is formalized." Please provide the following:

- a. Please identify the specific projects, whether expense or capital, associated with the increased electrical cable and termination component purchases.
- b. Referring to the response to part (a) above, were any of these projects completed and included in the determination of the 2007 forecast plant in service balance? Please explain.

CA-IR-242

**Ref: MECO T-6 Response to CA-IR-2 (Roads and Trails).**

Referring to CA-IR-2, Attachment 5, page 3 (Item 134), the \$50,000 forecast to maintain roads and trails refers to Attachments 6B and 6E. With regard to Item 134, Attachment 6B indicates that the cost to maintain access to transmission facilities in mountain areas "increased by 10x from previous years in 2006 and trend will continue due to breakup of plantation land." It is unclear how the documentation supporting Item 134 supplied in response to CA-IR-2, Attachment 6E (page 37) supports the \$50,000 road and trail maintenance estimate. Please provide the following:

- a. Please explain how Attachment 6E (page 37) supports the \$50,000 estimate.
- b. Please provide additional support showing the derivation of the \$50,000 amount.
- c. Please provide additional support documenting the 10x increase in 2006 over prior years.

CA-IR-243

**Ref: MECO T-6 Response to CA-IR-2 (Hardware, Software and Training).**

Referring to CA-IR-2, Attachment 13A, page 1 (Items 340-342), the \$180,000 forecast for hardware, software and training costs refers to Attachments 13B and 13E. Attachment 13B generally refers to "price quote" (Item 340) and "historical" (Items 341 and 342) as support for the forecast. The documentation supporting Items 340-342 supplied in response to CA-IR-2, Attachment 13E (page 12) provides actual costs for calendar year 2005, which totals about \$182,400. Please provide the following:

- a. Please explain the basis for the determination that the 2007 test year forecast should be equal to 2005 actual amounts.
- b. Please provide actual data for calendar years 2004 and 2006 that is comparable to the 2005 data relied upon by the Company.

**Witness T-7 Ms. Suzuki.**

CA-IR-244

**Ref: MECO-WP-711, Response to CA-IR-138 (Bad Debts).**

Please provide the following information regarding bad debts:

- a. For the monthly net write-off amounts shown in WP-711 or Attachment A to CA-IR-138, identify any individual account balances in excess of \$10,000 that were written off and explain the circumstances of such write-off.
- b. For the monthly net write-off amounts shown in column (a), identify any subsequent recoveries that were recorded in connection with any of the transactions listed in your response to part (a) of this information request and explain the circumstances of such recoveries.

CA-IR-245

**Ref: Response to CA-IR-139, Attachment A (Temporary Facilities).**

Please provide the following additional information regarding Temporary Facilities revenues:

- a. Explain the types of transactions that produce negative revenues in certain years and describe how such circumstances were estimated for the test year projections.
- b. Provide detailed workpapers stating all assumptions and calculations supportive of test year proposed revenues by Division.

**Ref: Response to CA-IR-140 (Support for HECO Charges).**

The referenced IR requested "complete copies of HECO forecast calculations, stating assumptions and allocation procedures employed to estimate and allocate among HECO/MECO and HELCO." However, only copies of Intercompany Service Forms and a one page memo were provided. Please provide the following additional information:

- a. Calculations required to reconcile each amounts shown on CA-IR-2, Attachment B, page 47 into the Intercompany Service forms.
- b. Additional calculation details to illustrate how HECO developed each element of the forecasted expense data and allocations of such amounts to MECO supportive of each amount for the test year.
- c. Actual amounts billed to MECO, do date, for each line item of expense shown on CA-IR-2, Attachment B, page 47.
- d. Explanations of any significant variances in the year to date actual ICB charges provided in your response to part (c) of this information request and the proposed test year amounts.

**Witness T-8 Ms. Suzuki.**

CA-IR-247

**Ref: Response to CA-IR-148, Attachment B (Customer Service Labor Hours/Overtime).**

Please provide the following information in support of proposed labor hour quantities:

- a. Explain all reasons why RA=MCN is believed to require 10,440 straight time hours and 1,234 overtime hours in the test year, when all prior years have considerably lower labor requirements.
- b. Explain all reasons why RA=MCF is believed to require 14,616 straight time hours plus 184 overtime hours in the test year, when all prior years have considerably lower labor requirements.
- c. Explain all reasons why RA=MCR is believed to require 27,144 straight time hours plus 3,040 overtime hours in the test year, when all prior years have considerably lower labor requirements.
- d. Explain all reasons why RA=MCZ is believed to require 8,352 straight time hours plus 2,030 overtime hours in the test year, when all prior years have considerably lower labor requirements, indicating how the Company's proposed IRP normalization adjustment impacts the test year labor expenses and comparisons to prior years.

- e. Provide complete copies of all reports, analyses, comparative workload statistics and other information supportive of your responses to parts (a) through (d) of this information request.

CA-IR-248

**Ref: MECO-812; Response to CA-IR-153, Attachment A; MECO IRP-3 Filing in Docket No. 04-0077, pages 3-1 and 3-5 (IRP-3 Activities and Costs).**

According to the Company's IRP filing, "MECO recognized that the third planning cycle should build upon its current resource plans...and not start from the ground up." At page 3-5 a "General Workflow" diagram appears. Please provide the following information:

- a. Explain activities where work and costs were avoided by MECO in IRP-3 as a result of building upon current resource plans and not starting "from the ground up."
- b. Provide an estimate of labor hours by RA and non-labor expenses by RA that were incurred by MECO at each level of the "General Workflow" table for IRP-3 that has been completed, to-date.
- c. Explain all reasons why a 3-year average of the actual 2004, 2005 and 2006 incremental IRP costs, as set forth in CA-IR-153, Attachment A in the amount of \$59,940 for Labor



would not be more representative of ongoing conditions than the \$100,000 used by MECO at MECO-812, line 5.

- d. Explain all reasons why a 3-year average of the actual 2004, 2005 and 2006 incremental IRP costs, as set forth in CA-IR-153, Attachment A in the amount of \$520,239 for Non-Labor would not be more representative of ongoing conditions than the \$696,000 used by MECO at MECO-812, line 5.
- e. Provide an update of all 2007 forecasted cost figures in MECO-WP-812, indicating 2007 year to-date actual and remaining 2007 forecasted costs by line item.

CA-IR-249

**Ref: Response to CA-IR-149 (Reclassification of Incremental Positions).**

Please provide the following:

- a. Confirm that the "three positions" referenced on page 3 of your response have historically been classified as "incremental positions" for which labor costs have been recovered through the surcharge mechanism under the HECO Companies' existing cost recovery mechanism.
- b. If anything other than an unqualified confirmation is provided in your response to part (a), please explain how the three positions were treated historically in terms of cost recovery through the surcharge versus base rates.

- c. If, in response to the HECO Companies' Motion for Clarification and/or Partial Reconsideration of D&O No. 23258, the Commission clarified that "labor costs was intended to refer to 'base labor,' consistent with the HECO Companies' existing cost recovery mechanism" as stated at page 3 of your response, upon what authority does MECO now propose to reclassify labor costs historically treated as "incremental" under the "existing" cost recovery mechanism to now be "base labor"?

CA-IR-250

**Ref: Responses to CA-IR-155, Attachment A; CA-IR-154, Attachment A (Actual versus Proposed TY Expenses).**

According to Attachment A, actual 2006 and YTD 2007 Account 910 Non-labor expenses are significantly below the projected test year expense level of \$298,000 (exclusive of DSM/IRP). Please provide the following:

- a. Explain the general reasons for higher anticipating spending in 2007, relative to actual 2006 and YTD 2007 levels, indicating specific forecasted expenditure items for 2007 that have not been incurred.
- b. For each of the following test year projected expense elements, please explain present spending plans for the balance of 2007 and provide copies of documents

supporting commitments to undertake the projected activities  
at test year spending levels:

1.	MCA	Act 110	EE550	\$47,531
2.	MCN	Act 112	EE422	\$73,489
3.	MCN	Act 112	EE501	\$21,000
4.	MCN	Act 112	EE520	\$10,000
5.	MSA	Act 100	EE550	\$29,971
6.	MSC	Act 750	EE201	\$38,100

- c. Explain any changes in specific spending plans for 2007 and/or any reasons why test year expenses should not be adjusted to reflect historical and ongoing expense levels.

CA-IR-251

**Ref: Response to CA-IR-154, page 6 (Info Advertising).**

The response indicates actual Account 911 Maui spending for year to-date 2007 of only \$2,042, relative to projected spending of \$30,000. Please provide the following information:

- a. Explain all plans to increase spending to proposed test year levels.
- b. Provide all available studies, reports, surveys analyses and other information relied upon by MECO to determine that historical spending on information advertising at levels at or below \$20,000 annually have been inadequate.

- c. Copies of all contracts, invoices and other documents indicating a commitment by MECO to increase actual informational advertising to projected test year levels.

**Witness T-9 Mr. Matsunaga.**

CA-IR-252

**Ref: MECO-928 and Response to CA-IR-161 (Pension Asset).**

Page 3 of the response to CA-IR-161 sets forth the pension asset/liability and related ADIT balance included in rate base in the Company's last rate case (Docket No. 97-0346). Please confirm that the pension liability of \$1,200,500 and the related debit ADIT balance of \$467,115 resulted in a net reduction to rate base of \$733,385. If this cannot be confirmed, please explain.

CA-IR-253

**Ref: MECO T-9, page 104, and Response to CA-IR-162 (Pension Asset).**

In response to part (b) of CA-IR-162, MECO T-9 states, in part:

The testimony quoted above is not based on any specific calculations of overall revenue requirements. However, the large negative accruals from 2000-2002 clearly reduced revenue requirements, other things being equal, and were certainly a substantial factor (but not necessarily the only factor, as indicated by the word "helped" in the above quoted testimony) in avoiding the need for a rate increase filing.

Please provide the following:

- a. Please define the term "revenue requirements" as used in this context.
- b. Does MECO (and witness T-9) believe that every year is a test year for revenue requirement purposes? Please explain.
- c. Does MECO (and witness T-9) believe that the Company or the Commission determines the appropriate test year for purposes of determining revenue requirement? Please explain.
- d. Does MECO (and witness T-9) believe that the Company or the Commission determines the appropriate revenue requirement for any selected test year? Please explain.
- e. For each calendar year during the period 2000 through 2002, please provide the amount of any Commission determined revenue requirement, with pinpoint reference to and copies of any documents associated with each such determination. If none, please so state.

CA-IR-254

**Ref: MECO T-9, page 104, MECO-928, and Response to CA-IR-162 (Pension Asset).**

In response to part (b) of CA-IR-162, MECO T-9 states, in part:

The testimony quoted above is not based on any specific calculations of overall revenue requirements. However, the large negative accruals from 2000-2002 clearly reduced revenue requirements, other things being equal, and were certainly a

substantial factor (but not necessarily the only factor, as indicated by the word "helped" in the above quoted testimony) in avoiding the need for a rate increase filing

Please provide the following:

- a. The quoted response indicates that the large negative accruals were a substantial factor, but not the only factor, that allowed MECO to avoid filing a rate increase request during the period 2000-2002. Please identify each other "substantial factor" that contributed to the avoidance of rate filings during this time period. If none, please so state.
- b. In response to part (a) of CA-IR-162, the Company confirmed that the negative NPPC accruals totaled (\$6,041,000) during calendar years 2000-2002. Please provide a similar quantification of each other "substantial factor" identified in response to part (a) above.
- c. For each "substantial factor" identified in response to parts (a) and (b) above, please identify any related items MECO has proposed to include in rate base in the pending rate case. If none, please so state.

CA-IR-255

**Ref: MECO MECO-928, and Response to CA-IR-163 (Pension Asset).**

In response to part (e) of CA-IR-163, MECO T-9 states, in part:

All other things remaining the same, the increase in NPPC from a negative \$1,496,000 in 2002 to a

positive \$2,127,000 in 2003 (amounts shown on MECO-928, page 1) was a factor, but not the only factor, which contributed to reduced earnings that caused MECO's 2003 rate of return on average rate base to be lower than its allowed rate of return. MECO did not, however, implement any increases to its tariff rates to flow through the increased NPPC costs since its tariff rates were already set.

Referring to MECO-928, NPPC swung from a negative \$1,496,000 in 2002 to a positive \$2,127,000 and remained positive in each subsequent year. Please provide the following:

- a. Since NPPC remained positive subsequent to 2002, please identify each "substantial factor" that contributed to the avoidance or deferral of a MECO rate filing during the period 2003 through mid-2006. If none, please so state.
- b. Please provide a quantification of each "substantial factor" identified in response to part (a) above.
- c. For each "substantial factor" identified in response to parts (a) and (b) above, please identify any related items MECO has proposed to include in rate base in the pending rate case. If none, please so state.

CA-IR-256

**Ref: MECO Response to CA-IR-163 (Pension Asset).**

In response to part (f) of CA-IR-163, MECO T-9 states, in part:

MECO has not implemented, including with respect to the 2002 DSM earnings cap adjustment addressed in part c above, any reductions to cost tracking mechanisms designed to flow negative pension costs back to ratepayers.

This statement is unclear. Please provide the following:

- a. Please confirm that the above statement is intended to convey that the 2002 earnings cap adjustment (i.e., reduction) to the recoverable amount of DSM shareholder incentives was not specifically designed or intended to solely flow any portion of the 2002 negative NPPC through to ratepayers. If this cannot be confirmed, please explain.
- b. Please confirm that the 2002 negative NPPC materially contributed to the 2002 earnings cap adjustment which did reduce the recoverable amount of DSM shareholder incentives collected from ratepayers. If this cannot be confirmed, please explain.
- c. Please confirm that, absent the 2002 negative NPPC, there would have been no 2002 earnings cap adjustment (i.e., reduction) to the recoverable amount of DSM shareholder incentives collected from ratepayers. If this cannot be confirmed, please explain.

CA-IR-257

**Ref: MECO Response to CA-IR-164 (FAS158 Pension Accounting).**

In response to part (a) of CA-IR-164, MECO stated in part: "MECO is proposing ratemaking adjustments to reverse the AOCI charges to equity and to include a pension asset and OPEB amount in rate



case, as described in MECO T-9." CA-IR-164(b) was intended to obtain both descriptions and amounts associated with the impact of FAS158 on the 2007 test year forecast, including MECO's proposed ratemaking adjustments. Please provide the following:

- a. Please provide a descriptive listing and amount of each ratemaking adjustment MECO has included in the 2007 test year forecast directly attributable to FAS158.
- b. Referring to the response to part (a) above, please identify each listed ratemaking adjustment that MECO would have proposed in the absence of FAS158.

CA-IR-258

**Ref: MECO Response to CA-IR-170 (Pension Asset).**

In response to part (a) of CA-IR-170, MECO stated in part: "Specific utility rates and charges established by the Commission may not be cost-based. For public policy or other reasons, the Commission has in the past approved utility rates and charges that were not cost-based." The intent of this excerpt is unclear. Please provide the following:

- a. Please define the phrase "cost-based rates" as used by MECO in responding to CA-IR-170.
- b. Is it the Company's opinion and belief that the HPUC intentionally approved rates and charges for MECO in prior rate cases that were insufficient, in the aggregate, to

cover MECO's forecasted cost of providing utility service, as found just and reasonable by the Commission?

1. If so, please provide a detailed explanation including examples of alleged deficiencies in prior rate orders.
  2. Referring to the response to part (b)(1) above, please explain whether the Company appealed each finding that MECO considered to be deficient in providing adequate cost recovery and describe the current status of each such appeal. If none, please so state.
- c. Was it the Company's intent to indicate that the specific rates and charges approved by the HPUC in prior MECO rate cases may have been insufficient to cover the direct and allocated costs for a particular customer class (i.e., vis-à-vis a detailed class cost of service study) but that the overall rates and charges were, in the aggregate, adequate to cover the cost of providing utility service, as found just and reasonable by the Commission? Please explain.

CA-IR-259

**Ref: MECO Response to CA-IR-171 (Pension Asset).**

In response to part (c) of CA-IR-171, MECO stated in part: "In establishing MECO's rates in a rate case, the Commission normally considers all revenue, expense, rate base and capital components for a test period as determined in a rate case. However, there may

be instances when certain revenues, expenses and/or rate base items are excluded from the test year and thus are not considered in the establishment of the utility's rates in a rate case proceeding, and recovery of such costs are considered outside of a rate case proceeding." Please provide the following:

- a. With regard to the above excerpt, is it the Company's intent to indicate that the Commission had improperly failed, in certain instances, to consider all relevant revenues, expenses, rate base and capital components in past MECO rate cases which resulted in MECO's inability to earn sufficient revenues to cover the cost of providing utility service? Please explain.
- b. If the response to part (a) above is affirmative, please provide a detailed explanation including examples of alleged deficiencies in prior rate orders.
- c. Referring to the response to part (b) above, please explain whether the Company appealed each finding that MECO considered to be deficient in providing adequate cost recovery and describe the current status of each such appeal. If none, please so state.

**Witness T-13 Mr. Okada.**

CA-IR-260

**Ref: Response to CA-IR-180, page 2 of 4 (Section 199 Deduction).**

The Company's response includes allocations of certain income statement expenses to "generation" to calculate QPAI income. Please provide the following information:

- a. Explain the rationale for allocating customer accounts, customer service, A&G and Miscellaneous expenses based upon relative revenue for Production Sales / Electric Sales.
- b. In your response to part (a) of this information request, explain why the "electric sales revenue" denominator in footnote 2 should be reduced by purchased power.
- c. State whether any allocation of customer accounts, customer service, A&G and miscellaneous expenses has been or will be reflected in actual filed tax returns for MECO operations, using the method shown in this IR response; or explain alternative positions that may be taken with the Internal Revenue Service.
- d. Explain why different allocation approaches are used in the *company's embedded cost of service studies for customer accounts, customer service, A&G and Miscellaneous expenses* in contrast to this revenue-based allocation for QPAI calculations.

CA-IR-261

**Ref: MECO-WP-1301; Response to CA-IR-177 (SUTA Contribution Rate/Base).**

According to the response, the test year SUTA expense should be reduced to reflect actual 2007 contribution rates of .21 percent in place of the estimated .61 percent, with a slightly lower wage base of \$35,300 per employee rather than \$35,700. Please provide the following information:

- a. Confirm that MECO would revise the calculations at the bottom of MECO-WP-1301, page 3 to reflect the updated actual rate and base or explain any further changes that may be needed.
- b. Provide source documentation for the table showing "Allocation of Payroll Taxes Based on Labor Dollars Charged" at WP-1301, page 2.
- c. Explain whether any revisions to the data in your response to part (b) of this information request is required and provide calculations of any such revisions.

**Witness T-18 Mr. Young.**

CA-IR-262

**Ref: MECO T-18, page 9, line 1 - (Customer Costs).**

At page 9, Mr. Young states that distribution lines and transformers are, "...assigned to demand and customer components, since the size and costs of these facilities are dependent not only on the

customers' load, but also on the type and location of the customers." Please provide the following:

- a. Copies of all studies, workpapers, analyses and other information relied upon to formulate this opinion with respect to the MECO system.
- b. Explain which (if any) cost of service allocation factors employed by MECO provide for recognition of the "location of customers."
- c. Describe how distribution lines and transformers are configured to serve a high-rise residential condominium in contrast to a single-family subdivision and explain whether or not the Company's customer allocation factors applied to the customer component of distribution plant costs recognizes such differences.
- d. Please explain whether any weighting adjustments to the residential customer counts are employed by MECO in its embedded cost allocations to recognize differences in customer density, such as large numbers of residential customers in high-rise condominium projects in contrast to single-family homes in rural locations.

CA-IR-263

**Ref: MECO T-18, page 15 (Schedule R Residential Service).**

Please explain the customer billing impacts of conversions from master metered to individually metered service for multi-family residential buildings, including the following information:

- a. Identify the rate schedules used to bill typical master metered multi-family building, with statistics indicating how many multi-family dwelling units are presently thought to be served under each MECO commercial rate schedule.
- b. Provide quantification of illustrative typical individual residential customer billing impacts for their dwelling unit upon conversion to individual metering.
- c. Explain how the Schedule R Apartment House Collection Arrangement impacts the comparisons of bill impacts in your response to part (b).
- d. Has the Company considered the implications of limiting master metering of multi-family buildings to encourage residential customer conservation measures?

CA-IR-264

**Ref: MECO T-18, page 15, line 22 - (Inclining Block Rates).**

At page 15, Mr. Young states, "The merits on an inclining block rate design include mitigation of rate impact on the smallest users of the system, pricing signals that encourage conservation, and

assignment of a greater share of the cost increase to the larger users." Please provide the following information:

- a. Explain whether or not Mr. Young believes that any of these "merits" would also justify adopting an inclining block rate for Schedule G customers.
- b. Explain whether or not Mr. Young believes that any of these "merits" would also justify flattening the declining block energy rates within Schedule J or Schedule P and/or implementing inclining block rates to such customers.
- c. To what extent does Mr. Young believes that any of these "merits" would justify flattening the Schedule P demand charges and/or adopting an inclining block Schedule P demand charge.
- d. Are inclining block or declining block energy rates more consistent with MECO's calculated marginal cost of service?

CA-IR-265

**Ref: MECO T-18, page 34, (Green Pricing Program).**

According to Mr. Young's testimony, "The voluntary contributions received from this Green Pricing Program have been used for such programs as the Sun Power for Schools Pilot Program which funds the installation of photovoltaic systems in public schools." Please provide a summary of customer participation and contribution rates for the past three calendar years and explain how and where an



accounting for such contributions is reflected in the Company's rate filing.

CA-IR-266

**Ref: MECO T-18, page 35 (TOU Rate Availability).**

Please provide the following information regarding MECO provision of time-of-use rates in compliance with EPACT 2005:

- a. Explain whether/how MECO believes that its present customer limitation proposed for TOU rates is consistent with the requirements of the EPACT.
- b. What is MECO's plan with respect to the timing for removing or changing the customer number limitations upon TOU rates that are offered?
- c. Has the Company prepared any reports or analyses of customer participation rates and customer impacts associated with pilot or test programs involving TOU rates?
- d. If your response to part (c) of this information request is affirmative, please provide copies of such reports/analyses (or citation if filed with the Commission).

CA-IR-267

**Ref: MECO T-18, page 44 (Standby Service).**

Please provide the following information regarding the Company's rate case proposed Standby Service rates:

- a. Provide a markup of any revisions to the MECO proposed Standby Tariff that is now being proposed in Docket No. 2006-0497.
- b. Recognizing that MECO's present and proposed sales rates do not have demand rates equal to calculated unit demand costs, please explain any further adjustments to the Company's proposed Standby pricing for supplemental service pricing that would be required if the Commission wished to achieve approximate parity with the level of demand charges proposed to be recovered within the corresponding general sales rate?
- c. Identify and describe any other adjustments that may be required to the MECO-proposed Standby rate levels in the interest of moderating any adverse bill impacts associated with customer billing demand changes arising from self generation and adoption of standby service pricing.

CA-IR-268

**Ref: MECO-WP-1802, (Embedded Cost of Service Model).**

Please provide complete copies of the load study data used to develop demand and energy allocation factors for the test year in the cost of service models for each Division.

CA-IR-269

**Ref: MECO-WP-1802 ( Plant Functionalization Data).**

Please provide complete copies of the Minimum System studies, Zero Intercept Studies and other supporting documentation for the input values at "LINEDATA" in the cost of service models for each Division.

CA-IR-270

**Ref: MECO-WP-1802, (Embedded Cost of Service Model).**

Please provide complete copies in electronic and hard copy format of all supporting analyses to functionalize or allocate input data, including but not limited to rate base input elements at worksheet "RBDATA", customer weighting factors at "MEALDATA" C1 through C8 and "typical cost" data at "MECCDATA" in the cost of service models for each Division.



**DOCKET NO. 2006-0387**

**MAUI ELECTRIC COMPANY, LIMITED**

**FIRST SUBMISSION OF INFORMATION REQUESTS**

**INSTRUCTIONS**

In order to expedite and facilitate the Consumer Advocate's review and analysis in the above matter, the following is requested:

1. For each response, the Company should identify the person who is responsible for preparing the response as well as the witness who will be responsible for sponsoring the response should there be an evidentiary hearing;
2. Unless otherwise specifically requested, for applicable schedules or workpapers, the Company should provide hard copies of each schedule or workpaper together with one copy of each such schedule or workpaper on electronic media in a mutually agreeable format (e.g., Excel and Quattro Pro, to name two examples); and
3. When an information request makes reference to specific documentation used by the Company to support its response, it is not intended that the response be limited to just the specific document referenced in the request. The response should include any non-privileged memoranda, internal or external studies, assumptions, Company instructions, or any other relevant authoritative source which the Company used.
4. Should the Company claim that any information is not discoverable for any reason:
  - a. State all claimed privileges and objections to disclosure;

- b. State all facts and reasons supporting each claimed privilege and objection;
- c. State under what conditions the Company is willing to permit disclosure to the Consumer Advocate (e.g., protective agreement, review at business offices, etc.); and
- d. If the Company claims that a written document or electronic file is not discoverable, besides complying with subparagraphs 4(a-c), identify each document or electronic file, or portions thereof, that the Company claims are privileged or will not be disclosed, including the title or subject matter, the date, the author(s) and the addressee(s).

DOCKET NO. 2006-0387

MAUI ELECTRIC COMPANY, LIMITED

FIRST SUBMISSION OF INFORMATION REQUESTS

General Information Requests.

CA-IR-1            For each of the MECO witnesses who sponsor test period budgeted labor direct expense amounts, please provide the following information:

- a.     Identify each employee involved in preparation of budgeted staffing and associated labor direct expense amounts included in the witnesses' portion of the rate case test period budget.
- b.     Provide complete copies of all calculations, spreadsheet files, "pencil" workpapers, surveys and other analyses performed by each of the employees identified in response to part (a) above, documenting all work done to determine required staffing levels and overtime hours by Department, RA, Activity and NARUC Account. If spreadsheet files are provided, please provide paper and electronic copies (.xls format).
- c.     Describe the actual force level that existed at the date the budget was prepared or otherwise served as a base for purposes of preparing the budget level.

- d. For each budgeted employee position that is added to existing actual force levels (as of the date the budget was prepared), **explain** the analyses undertaken to determine that each added position was necessary and should be filled in order to meet present or anticipated work requirements. Also, please explain how the anticipated work requirements were defined and determined.
- e. Describe and, to the extent possible, quantify the backlog of work, unfinished projects, deferred maintenance and other labor requirements unfulfilled at present staffing levels, that will be satisfied by adding the employee positions identified in your response to part (d) above.
- f. Provide complete copies of all studies, analyses, workpapers, projections, notes, correspondence, assumptions and other documents associated with your responses to parts (d) and (e) above.

CA-IR-2

For each of the MECO witnesses who sponsor test period budgeted non-labor direct expense amounts, please provide the following information:

- a. Identify each employee involved in preparation of budgeted non-labor direct expense amounts included in the rate case test period budget and sponsored by the witness.



- b. Provide complete copies of all calculations, spreadsheet files, "pencil" workpapers, surveys and other analyses performed by each of the employees identified in response to part (a) above, indicating the amounts by Department, RA, Activity and NARUC Account that such calculations support. If spreadsheet files are provided, please provide paper and electronic copies (.xls format).
- c. For each budgeted non-labor amount in the test period forecast that exceeds \$50,000, please describe the basis for determining the budgeted amount (for example, bid solicitation, price times quantity estimation, historical cost escalated, etc.)
- d. For each item in your response to part (c) above, where specific quantities and prices were discretely forecasted, explain the basis for and source of the budgeted quantity inputs and budgeted prices for each such item. Provide complete copies of all studies, reports and other documents that were relied upon.
- e. For each item in your response to part (c) above where historical costs were averaged and/or escalated, provide all historical cost information that was considered and explain how such data was evaluated and escalated to derive test year proposed levels.

- f. For each item in your response to part (c) above where a bid solicitation or other special analysis was conducted, explain what was done and provide complete copies of all supporting reports, bid solicitations, proposals, analyses, workpapers and other documents associated with such efforts.
- g. Provide complete copies of all other information required to completely support and document the test year projected expense levels being proposed by the Company, including general assumptions and forecasting instructions that were employed.

CA-IR-3

To the extent not provided in response to CA-IR-1 or CA-IR-2, please provide complete copies of all other calculations, spreadsheet files, "pencil" workpapers, surveys, documentation and other analyses supporting each ratemaking adjustment (e.g., budget adjustments, normalizing adjustments, etc.) to projected test year expense, plant in service, accumulated depreciation, etc. being proposed by the Company, including any assumptions and adjustment instructions that were employed.

CA-IR-4

Please provide copies of the following documents for Hawaiian Electric Industries, Inc., Hawaiian Electric Company, and/or Maui Electric Company:

- a. 2006 Annual Report to Stockholders;
- b. 2006 Statistical Supplement to Annual Report;
- c. 2006 Form 10-K;
- d. Prospectus for most recent public offering of common stock;
- e. Prospectus for most recent public offering of long-term debt;  
and
- f. Prospectus for most recent public offering of preferred stock  
or hybrid securities.

CA-IR-5

Please provide copy of all reports prepared by rating agencies that describe Hawaiian Electric Industries, Inc. and/or Hawaiian Electric Company for the period 2006 to the present.

CA-IR-6

Please provide copy of all reports prepared by security analysts that describe Hawaiian Electric Industries, Inc. for the period 2006 to the present.

CA-IR-7

Please provide a schedule that shows the capital structures for Hawaiian Electric Industries, Inc. (consolidated), Hawaiian Electric Company (consolidated) Hawaiian Electric Company (Oahu only),

Maui Electric Company, and Hawaii Electric Light Company for the period 2002 – 2006 and for the test period in this proceeding.

CA-IR-8 Please provide a schedule that shows the segment information for Hawaiian Electric Industries, Inc. for each year 2002 – 2006.

CA-IR-9 Please identify any methodological or data changes, except for the time frame of information contained in the capital structure and/or cost rates of fixed cost components, of MECO's current application.

CA-IR-10 Please provide a schedule that shows the various security ratings of HEI, HECO and MECO for each year 2002 to the present.

CA-IR-11 Please provide copy of any presentations of HEI and HECO given to security analyses and rating agencies for the period 2006 to present.

**Witness T-16 Roger A. Morin.**

CA-IR-12 Please identify every public utility rate proceeding in which Dr. Morin has testified in since 2000 and provide the following information for each proceeding:

- a. Name of Company;
- b. Name of Jurisdiction;

- c. Docket Number;
- d. Date of Testimony;
- e. Cost of Equity Recommended; and
- f. Cost of Equity Authorized.

CA-IR-13 Please provide copy of the source data used in deriving the "Allowed Risk Premiums", as cited on pages 41-45.

CA-IR-14 Please indicate if Dr. Morin is aware of any academic or other studies that maintain that all investors rely exclusively on analysts' forecasts of earnings per share in making investment decisions. Please cite any such studies that maintain this and indicate specifically where in the studies such a claim is made.

CA-IR-15 **Re: Statement on page 53, lines 12-13.**

Please indicate if Dr. Morin is aware of any "evidence" that challenges the use of analysts' forecasts of earnings as an indicator of stock price performance and/or cost of capital estimation.

CA-IR-16 Please identify and provide copy of any analyses used by Dr. Morin in deriving the 0.25% risk adjustment he adds to the cost of equity for the average risk electric utility in order to develop a 11.25% cost of equity for MECO.

CA-IR-17

**Re: Risk adjustment proposed for MECO.**

Please provide the following information for each cost of equity analysis that Dr. Morin has performed over the period 2000 to the present:

- a. Average cost of equity (i.e., CAPM, Risk Premium, and DCF – as shown on page 63) for the average risk electric or natural gas utility; and
- b. Adjustment proposed for subject utility in each case.

**Witness T-17 Tayne Sekimura.**

CA-IR-18

Please provide copies of S&P articles cited in footnote 17.



DOCKET NO. 2006-0387

MAUI ELECTRIC COMPANY, LIMITED

SECOND SUBMISSION OF INFORMATION REQUESTS

INSTRUCTIONS

In order to expedite and facilitate the Consumer Advocate's review and analysis in the above matter, the following is requested:

1. For each response, the Company should identify the person who is responsible for preparing the response as well as the witness who will be responsible for sponsoring the response should there be an evidentiary hearing;
2. Unless otherwise specifically requested, for applicable schedules or workpapers, the Company should provide hard copies of each schedule or workpaper together with one copy of each such schedule or workpaper on electronic media in a mutually agreeable format (e.g., Excel and Quattro Pro, to name two examples); and
3. When an information request makes reference to specific documentation used by the Company to support its response, it is not intended that the response be limited to just the specific document referenced in the request. The response should include any non-privileged memoranda, internal or external studies, assumptions, Company instructions, or any other relevant authoritative source which the Company used.
4. Should the Company claim that any information is not discoverable for any reason:
  - a. State all claimed privileges and objections to disclosure;



- b. State all facts and reasons supporting each claimed privilege and objection;
- c. State under what conditions the Company is willing to permit disclosure to the Consumer Advocate (e.g., protective agreement, review at business offices, etc.); and
- d. If the Company claims that a written document or electronic file is not discoverable, besides complying with subparagraphs 4(a-c), identify each document or electronic file, or portions thereof, that the Company claims are privileged or will not be disclosed, including the title or subject matter, the date, the author(s) and the addressee(s).

**DOCKET NO. 2006-0387**

**MAUI ELECTRIC COMPANY, LIMITED**

**SECOND SUBMISSION OF INFORMATION REQUESTS**

**General Information Requests.**

CA-IR-19            Please provide a complete copy of the most current available MECO management organization chart, illustrating reporting relationships among management personnel, departmental organizations and relative staffing levels within each department.

CA-IR-20            Please provide a complete copy of the most current available Hawaiian Electric Company, Inc. ("HECO") management organization chart, illustrating reporting relationships among management personnel, departmental organizations and relative staffing levels within each department, with an explanation of which departments are supportive of MECO operations and the services/activities provided to MECO by such departments.

CA-IR-21            Please provide in hard copy and electronic media a complete table of HECO and MECO Departmental and Responsibility Area ("RA") reporting structure documentation, showing RA descriptions and indicating how each department/RA is aligned with the MECO and HECO organization charts provided in response to the preceding two information requests.

CA-IR-22

Please provide a chart showing each separate legal entity within HEI and provide the following additional information:

- a. Explain and quantify the types of recurring and non-recurring affiliate transactions that took place in 2006 and 2007 (to-date) between MECO and each affiliated entity.
- b. Describe the basis of pricing each form of affiliate transaction listed in your response to part (a) of this information request, for example fully distributed cost, market price, appraised value, etc.
- c. If any affiliate service agreements exist in connection with MECO affiliate transactions, please provide complete copies of same.
- d. Identify and describe each affiliate relationship of MECO for which Hawaii PUC notification and/or approval has been sought or received.
- e. Provide complete copies of any documents associated with your response to part (d) of this information request.

CA-IR-23

Please provide complete copies of the consolidating financial statement workpapers (income statements and balance sheets) for the HEI financial statements issued publicly for calendar 2005 and calendar 2006. Include in your response the most detailed available stand-alone income statements and balance sheets for

each legal entity within HEI for each period/date, as well as details regarding elimination entries and any reclassifications made in preparing consolidated public financial statements.

CA-IR-24

Please provide a complete and detailed description of the HECO/MECO budget process and cycle, indicating the time line for each individually significant budget activity/step throughout a typical year and identifying the documents produced at each step of such process/cycle. Provide specimen copies of each type of document routinely created within the most recently completed budget cycle, including but not limited to budget assumption statements, calendars, input forms, staffing documentation, presentation graphics and budget review/approval documentation.

CA-IR-25

Please provide a detailed statement of MECO and HECO actual employee levels on a quarterly basis for each year 2005 through 2007, to-date, indicating the numbers of full-time, part-time and temporary employees in each department and RA and/or other reportable work groups and the comparable numbers of authorized, but unfilled positions of each type within each department, RA or work group page.

CA-IR-26 Please provide a complete copy of the most recently completed Federal and State income tax returns for MECO, including all supporting schedules.

CA-IR-27 Please provide a complete copy of employee benefit documentation associated with each existing employee health, welfare or retirement plan, in the form currently provided to employees to advise them of such benefits.

CA-IR-28

- a. Has the Company initiated any individually significant efficiency or cost reduction programs since January 1, 2005?
- b. If affirmative, please identify and describe each such program and provide copies of all reports analyses, projections, workpapers and other documentation related to same.

CA-IR-29 **Ref: MECO-102 – MECO Financial Statements.**

Please provide an updated version of the Balance Sheet and Income Statement, substituting December 31, 2006 data in place of September 30, 2006 information.

CA-IR-30

**Ref: MECO-WP-101(G) - Non-Labor Projected Test Year Expenses Block/Account/Department/RA/Activity/Location/EE.**

Please provide a report showing an alternative sort of Non-Labor actual expenses for the years 2002 through 2006 compared to budget 2007, using the following sort sequence: Block of Accounts/RA/Expense Element/Activity. Please provide your response in hard copy and electronic (excel) format.

CA-IR-31

**Ref: MECO-WP-101(F) - Direct Labor Projected Test Year Expenses Block/Account/Department/RA/Activity/Location.**

Please provide a report showing an alternative sort of Direct Labor actual expenses for the years 2002 through 2006 compared to budget 2007, using the following sort sequence: Block of Account/RA/Expense Element/Activity. Please provide your response in hard copy and electronic (excel) format.

**Witness T-1 Mr. Reinhardt.**

CA-IR-32

**Ref: T-1, page 17, lines 10-11.**

- a. Is MECO using the same "2007 O&M Expense Budget" for internal cost management monitoring purposes in 2007 that was developed and filed with the PUC for rate case purposes?
- b. If your response is anything but an unqualified "yes," please identify and describe each different type of budget that is developed in the normal course of business and explain the differences between MECO's 2007 rate case budget and each of its other 2007 internal cost management budget(s).

CA-IR-33

**Ref: T-1, page 18, lines 10 - 25.**

Please provide complete copies of all documents developed and circulated among MECO employees to inform them of common budget assumptions to be employed in the development of the rate case projections.

CA-IR-34

**Ref: MECO-108, MECO-109, MECO-110 - Proposed Rate Schedules.**

Please provide the Company's proposed rate schedules in electronic Word format, indicating by "track changes" or other editing markups each change being proposed to the existing tariffs.

CA-IR-35

**Ref: MECO-112 - Proposed Rule 7 and Rule 8 Changes.**

Please provide the Company's proposed rules in electronic Word format, indicating by "track changes" or other editing markups each change being proposed to the existing Rule 7 and Rule 8.

CA-IR-36

**Ref: MECO-102 – Non-utility Property.**

Please provide a detailed descriptive breakdown of the Company's Non-utility property as of December 31, 2006 indicating why/how such property is being held as well as actual calendar 2006 revenues and expenses associated with such property.

CA-IR-37

**Ref: MECO-102, page 1 - Balance Sheet "Regulatory Assets."**

Please provide the following information regarding the Company's per book balance of "Regulatory Assets:"

- a. A detailed itemization of each item and amount within "Regulatory Assets" as of September 30, 2006 and December 31, 2006.
- b. Identify and describe each prior Hawaii PUC Decision or other authority relied upon to record each item listed in your response to part (a) of this information request.
- c. Explain how each listed item is treated in your rate filing, indicating where any rate base or operating effects are recognized within filed Exhibits or Workpapers.



- d. State with specificity any amortization period or other accounting convention that is expected to control changes in the balance for each item listed in your response to part (a) of this information request.

CA-IR-38

**Ref: MECO-102, page 2 - Balance Sheet "Regulatory Liabilities."**

Please provide the following information regarding the Company's per book balance of "Regulatory Liabilities:"

- a. A detailed itemization of each item and amount within "Regulatory Liabilities" as of September 30, 2006 and at December 31, 2006.
- b. Identify and describe each prior Hawaii PUC Decision or other authority relied upon to record each item listed in your response to part (a) of this information request.
- c. Explain how each listed item is treated in your rate filing, indicating where any rate base or operating effects are recognized within filed Exhibits or Workpapers.
- d. State with specificity any amortization period or other accounting convention that is expected to control changes in the balance for each item listed in your response to part (a) of this information request.

Ref: T-1, page 19, lines 13 to 17 - Eliminated Costs;  
MECO-104, pages 24 to 29 - Executive Compensation.

Please provide a detailed itemization of any amounts of HEI-allocated, HECO allocated or MECO directly-incurred expenses associated with the listed (on page 24 of MECO-104) Executive Salary, Executive Bonus, Restricted Stock, Options, Stock Appreciation Rights, LTIP or any other stock-based compensation program that were not eliminated by the company in preparing its rate filing.

**Witness T-2 Ms. Ide.**

CA-IR-40

**Ref: T-2, pages 2-3; MECO-WP-201a - "MECO July 2006 Forecast."**

Please provide a complete copy of the most detailed available documentation in support of this forecast, including but not limited to Forecast Planning Committee Reports, Energy Services Analysis reports, data tables, summary reports, Powerpoint presentations, alternative scenarios and economic outlook documentation that was relied upon.

CA-IR-41

**Ref: MECO-203, MECO-204, MECO-205 (Sales & Customer Data.**

For **each** of the referenced Exhibits, please provide the following information:

- a. An updated data table and graph including actual 2006 data in place of the 2006 forecasted information.
- b. Electronic Excel format files for all data provided in response to part (a) of this information request.
- c. Actual cooling degree day ("CDD") data for each year.
- d. Provide Weather Normalized Use/Average Customer and Billed Sales in each actual year 1995 through 2006, if available.

- e. Provide the calculation algorithms employed to determine the response to part (d) of this information request in each year.

CA-IR-42

**Ref: MECO T-2, page 2, line 23 (MECO's July 2006 Forecast).**

Please provide the following information regarding MECO's annual sales forecast and any quarterly update procedures:

- a. A complete copy of the most recent "annual sales forecast," if any updates have been prepared after July 2006.
- b. A complete copy of the most "recent quarterly sales update," if any updates are available.
- c. A complete copy of any revised sales and customer forecast data for 2007 that was recently produced in connection with MECO Integrated Resource Planning efforts or filings.
- d. Complete copies of documents prepared in the normal course of business to track and reconcile actual sales and customer levels in comparison to budgeted levels for 2007, to date.

CA-IR-43

**Ref: MECO T-2, MECO-202 (Maui, Lanai, Molokai Projects).**

Please provide updated information for projects planned or under construction, indicating start of load dates and whether the project was included in test year load projections on such date.

CA-IR-44

**Ref: MECO T-2, page 10, lines 18-23; MECO-206 (CHP Adjustments).**

Please describe the present operational status of each existing CHP generation and any assumed "future 3<sup>rd</sup> party CHP", indicating MWH adjustments made for each CHP unit and the basis for such adjustments.

CA-IR-45

**Ref: MECO T-2, page 7, lines 14-18 (Forecast Methodologies).**

Please state with specificity which of the five listed methodologies were employed to derive the proposed test year sales and proposed customer forecasts for each rate class by Division; and provide complete copies of all formulae, algorithms, input data and other supporting documentation supporting the derivation of each projected MWH and customer amount being sponsored for each class.

CA-IR-46

**Ref: MECO-201a (Forecast 2007 Avg. No. of Customers).**

To the extent not fully documented in the immediately preceding IR response, please explain the methodologies used and provide complete copies of all input values and calculations used to develop the projected number of customer by Division and rate schedule for the test year.

CA-IR-47

**Ref: MECO T-2, page 32 (Forecast Accuracy).**

Please provide monthly 2007, to date, actual MWH sales data and customer count data by rate schedule, indicating how such amounts compare to projected test year monthly MWH sales and customer counts. Explain known reasons for any observed significant variances between projected and actual MWH/customers.

CA-IR-48

**Ref: MECO T-2; page 17, lines 21-24, page 24, line 13, page 30, line 22 (Marketing/Customer Service Analysis of Schedule P Accounts).**

Please provide the following information:

- a. A complete copy of all documentation associated with the "Marketing Analysis" referenced in the testimony.
- b. Annual actual customer and KWH sales data for each of the 121 Maui Division Schedule P customers for each year 2002 through 2006 and for test year 2007 (projected).
- c. Annual actual customer and KWH sales data for each of the 3 Lanai Division Schedule P customers for each year 2002 through 2006 and for test year 2007 (projected).
- d. Annual actual customer and KWH sales data for each of the 14 Molokai Division Schedule P customers for each year 2002 through 2006 and for test year 2007 (projected).

- e. Provide explanatory narrative for the individually significant changes in the comparative annual sales and customer data provided in your responses to parts (b) through (d) of this information request.

**Witness T-3 Mr. Young.**

CA-IR-49

**Ref: T-3, page 5, lines 14 to 19 - Rider Revenue Calculations.**

Mr. Young describes in testimony how customers on rate riders were evaluated to develop test year revenue estimates. Please provide complete copies of individual rider customer billing data and other documentation relied upon to derive inputs to the various WP-302 and WP-304 electronic spreadsheet files used to price out the rate rider revenue adjustments.

CA-IR-50

**Ref: T-3, page 5, lines 9 to 13 - (Schedule R Inclining Blocks).**

Please provide complete copies of all source data, studies and spreadsheet files (excel format) underlying the determination of test year sales and revenues within each block of proposed Schedule R rates. In addition please explain and provide documentation for each assumption made to allocate sales among rate blocks or to otherwise adjust billing determinants.

CA-IR-51

**Ref: MECO-WP-303, page 34 - (Dole Lanai).**

Please provide a complete copy of the Dole Lanai service contract and explain how the rate increase was applied to contract terms and conditions to derive new rate elements.



**Witness T-4 Mr. Sakuda.**

CA-IR-52

**Ref: T-4.**

- a. Please provide for the test year period, in electronic spreadsheet format and hard copy format the input data for the following:
  1. total energy and hourly load for each Division of the MECO electric system;
  2. **energy** and hourly load to be served by the MECO firm and non-firm generating units;
  3. **energy** and hourly load to be served by firm and non-firm purchased power producers;
  4. **please** indicate which units in the Maui model are on AGC;
  5. **please** provide the minimum run time for each individual generating unit used by MECO, including purchased power; and
  6. **operating** constraints such as must-run units and minimum energy purchases from purchased power producers.
- b. Please provide all other input data files for the P-MONTH Production Simulation Model, for the test year period, in electronic format and hard copy that were not included in response to part (a) of this information request.

- c. Please provide the energy generated by Generating Unit by month for 2005, 2006 and 2007 year-to-date for the Maui Division, the Molokai Division, and the Lanai Division.
- d. Please provide actual monthly and annual heat rates, gross and net generation for each generating unit for the years 2004, 2005, 2006 and 2007 year-to-date for the Maui Division, the Molokai Division, and the Lanai Division.
- e. Please provide in electronic spreadsheet format and hard copy format the hourly output of the P-MONTH Production Simulation Model for each Maui generating unit, including purchased power.
- f. Is the Company intending to update the Maui Division Production Simulation inputs using 2006 generating information?
- g. If the response to part (f) is yes, what does the Company intend to update and when will the Company provide updated Production Simulation Results?
- h. Please indicate all MECO generating units or power purchases that operate during specific operating hours (i.e., limited to 6 am to 9 pm, etc.) and include the respective hours of operation.

- i. Please provide the most up to date version of MECO's Integrated Resource Plan (IRP) including all amendments, attachments, and exhibits.

CA-IR-53

**Ref: T-4, page 9, lines 22-24, page 10, lines 1-26 and page 11, lines 1-7.**

- a. Please provide actual fuel prices for industrial fuel oil and diesel oil by month, since January 1, 2006.
- b. Please provide excerpts of pricing provisions for both industrial fuel oil and diesel fuel pursuant to the Chevron and Tesoro fuel contracts, as well as illustrative calculations, input value documentation and supporting market price or index documentation for the Company's determination of test year unit prices.
- c. Please provide taxes, ocean transportation, land transportation, petroleum terminalling and wharfage costs that are included in the fuel price to determine the delivered-to-plant price.
- d. Please provide a copy of confidential workpaper MECO-WP-402, pages 1 – 3.

CA-IR-54

**Ref: T-4, page 11, lines 4 – 7.**

The referenced section of testimony indicates that IFO and diesel fuel will be purchased from both Chevron and Tesoro. Please

provide the percentage of fuel that will be purchased from Chevron and the percentage of fuel that will be purchased from Tesoro for each MECO generating unit.

CA-IR-55

**Ref: T-4, page 11, lines 24 – 26.**

Page 11 of T-4 seems to omit Variable Operation and Maintenance cost in calculating commitment and dispatch levels. Please explain why the Variable O&M cost is not included in the cost of dispatching any MECO generating unit.

CA-IR-56

**Ref: T-4, page 14, lines 1 – 3.**

The referenced testimony indicates that the capacity purchased from HC&S is adjusted for its forced outage rate.

- a. Please provide the forced outage rate for HC&S.
- b. Please provide all calculations and supporting documentation that were used to determine the forced outage rate for HC&S.
- c. Please provide all calculations and supporting documentation showing how this forced outage rate affects the amounts of capacity and energy purchased by MECO from HC&S.

CA-IR-57

**Ref: T-4, page 24, lines 4–5, MECO-WP-404, page 90.**

The variable O&M costs for each MECO generating unit are provided on MECO-WP-404, Page 90. Lines 4-5 of page 24 in T-4 indicate that these variable O&M costs were determined by analyzing actual historical variable O&M costs.

- a. Please provide all calculations used to determine the variable O&M costs found on MECO-WP-404, page 90.
- b. Please provide the actual variable O&M costs incurred by each of MECO's generating units annually from 2001 through 2006.

CA-IR-58

**Ref: T-4, page 25, lines 14 – 16.**

Please explain how the commitment and dispatch penalty factors were derived for each MECO generating unit and power purchase. Please include all supporting documentation and calculations.

CA-IR-59

**Ref: T-4, page 36, lines 8 – 10.**

The referenced section of testimony indicates that MECO uses biodiesel fuel in its Maalaea 12 and 13 generating units during startup and shutdown sequences.

- a. Please indicate the amount of biodiesel fuel that is used for each startup or shutdown sequence in Maalaea 12 and 13.

- b. Please provide the calculations used to determine the biodiesel fuel expense for the test year.

CA-IR-60

**Ref: T-4, page 51, lines 1 – 11.**

The referenced testimony indicates that the gross heat rate for the entire Molokai Division system was used to calculate the fuel consumption.

- a. Please provide historical heat rates for each generating unit in the Molokai Division, annually from 2001 through 2006.
- b. Please provide the number of hours that each Molokai Division generating unit was run, monthly from 2001 through 2006.
- c. Please provide the amount of fuel consumed by each Molokai Division generating unit, monthly from 2001 through 2006.
- d. Please provide the amount of energy produced by each Molokai Division generating unit, monthly from 2001 through 2006.

CA-IR-61

**Ref: T-4, page 55, lines 16 – 26.**

The referenced testimony indicates that the gross heat rate for the entire Lanai Division system was used to calculate the fuel consumption.

- a. Please provide historical heat rates for each generating unit in the Lanai Division, annually from 2001 through 2006.
- b. Please provide the number of hours that each Lanai Division generating unit was run, monthly from 2001 through 2006.
- c. Please provide the amount of fuel consumed by each Lanai Division generating unit, monthly from 2001 through 2006.
- d. Please provide the amount of energy produced by each Lanai Division generating unit, monthly from 2001 through 2006.

CA-IR-62

**Ref: MECO-403, MECO-WP-403, pages 1-3.**

Please provide a copy of any energy Loss Studies and other documentation that support the energy losses shown in the referenced exhibit and workpaper.

CA-IR-63

**Ref: MECO-WP-404, page 7.**

Please explain and provide all calculations for how the Operating Cost (\$/MWh) is calculated for each MECO generating unit on the referenced workpaper.

CA-IR-64

**Ref: MECO-WP-404, pages 7 and 17.**

MECO-WP-404, Page 17 lists the fixed O&M cost for each MECO generating unit. MECO-WP-404, Page 7 provides the total fixed O&M cost for each MECO generating unit.

- a. Is fixed O&M used in the production simulation to commit and dispatch generating units?
- b. If the response to part (a) above is yes, please explain how fixed O&M is used in the production simulation and provide answers to parts (c) and (d) of this information request.
- c. Please provide supporting documentation for the fixed O&M costs shown on MECO-WP-404, page 17.
- d. Please explain and provide all calculations for how the Fixed O&M (M\$) is calculated for each MECO generating unit on MECO-WP-404, page 7.

CA-IR-65

**Ref: MECO-WP-404, page 16.**

The referenced workpaper contains the thermal basic summary for MECO's generating units in the Maui Division. This workpaper indicates that Kahului 1 and 2 operate in different modes (i.e., baseload or cycling) during different months of the year.

- a. Please explain how Kahului 1 and 2 were operated historically from 2001 through 2006; whether they were baseload or cycling units, during each month of the year.



- b. Please explain how Kahului 1 and 2 are expected to be operated during the test year if different from historical operation.

CA-IR-66

**Ref: MECO-WP-404, pages 19, 20 and 84.**

MECO-WP-404, page 19 contains the maintenance outage rate for each MECO generating unit. MECO-WP-404, page 20, contains the thermal maintenance summary for MECO generating units, with outages defined for specific days. Please explain how maintenance outages are modeled in the production simulation, whether by the maintenance outage rate, by specific start dates and durations, or by another method.

CA-IR-67

**Ref: MECO-WP-404, page 20.**

The referenced workpaper contains the Thermal Maintenance Summary input to the production simulation.

- a. Does the ID number listed on MECO-WP-404, page 20 correspond to the ID number found on MECO-WP-404, page 17, Thermal Cost and Variable Summary?
- b. If the response to part (a) above is no, please provide a copy of this workpaper with the names of each generating unit provided.

CA-IR-68

**Ref: MECO-WP-404, pages 20 and 84.**

MECO-WP-404, page 20 appears to contain more outages than are listed on the 2007 overhaul schedule, given in MECO-WP-404, page 84. Please provide a comprehensive list of all maintenance and overhaul outages for 2007 for all MECO generating units.

CA-IR-69

**Ref: MECO-WP-404, page 21, T-4, page 17, lines 1-3.**

The referenced testimony indicates that MECO purchases 12 MW from Hawaiian Commercial & Sugar (HC&S) during the on-peak period and 8 MW during the off-peak period. MECO-WP-404, page 21 provides input information to the production simulation relating to fixed energy transactions, including HC&S. It appears that the maximum capacity and associated energy of the HC&S transaction changes monthly.

- a. Please explain and provide all calculations and supporting documentation that were used to determine the maximum capacity and associated energy amounts for HCS\_ON for each month on MECO-WP-404, page 21.
- b. Please explain and provide all calculations and supporting documentation that were used to determine the minimum capacity amount for the fixed energy transactions named HCS\_ON and HCS\_OFF on MECO-WP-404, page 21.

CA-IR-70

**Ref: MECO-WP-404, page 23.**

The referenced workpaper is the regulating reserve input file that indicates the spinning reserve requirement is shown for the first seven days of January.

- a. Please indicate if the spinning reserve requirement shown in the referenced workpaper is representative of each month of the 2007 test year.
- b. If not, please provide the spinning reserve requirement for January through December 2007.

CA-IR-71

**Ref: MECO-WP-404, pages 24–53.**

The referenced workpaper contains Pattern 12, Pattern 13, Pattern 15, and Pattern 19.

- a. Please indicate which MECO generating unit or power purchase is represented by each of the aforementioned pattern files.
- b. Please provide all other pattern files that were used in the production simulation, indicating which MECO generating unit or power purchase is represented by each pattern file.

CA-IR-72

**Ref: MECO-WP-404, page 85, MECO-WP-501, page 1.**

The MECO generating unit Normal Top Load ratings on MECO-WP-404, page 85 do not correspond with the MECO

generating unit Normal Top Load ratings on MECO-WP-501, page 1. Please see the table below.

Generating Unit	MECO-WP-404, Page 85 Normal Top Load Rating (MW)	MECO-WP-501, Page 1 Normal Top Load Rating (MW)
Kahului 1	4.71	5.00
Kahului 2	4.76	5.00
Kahului 3	10.98	11.50
Kahului 4	11.88	12.50
Maalaea 4	5.51	5.60
Maalaea 5	5.51	5.60
Maalaea 6	5.51	5.60
Maalaea 7	5.51	5.60
Maalaea 8	5.48	5.60
Maalaea 9	5.48	5.60
Maalaea 10	12.34	12.50
Maalaea 11	12.34	12.50
Maalaea 14/15/16	53.50	58.00
Maalaea 17/18/19	53.50	58.00

Please identify the normal top load ratings for the above MECO (Maui Division) generating units that were used in the MECO production simulation for the test year.

CA-IR-73

**Ref: MECO-WP-404, page 89.**

- a. Please explain any tests or related data that were used to develop the Heat Rate Constants for each generating unit.
- b. Please provide copies of all workpapers, analyses and source documents that support this information. The workpapers and analysis should set forth all computations,

state all assumptions made in performing such calculations, and explain the basis for such assumptions.

CA-IR-74

**Ref: MECO-WP-404, page 91.**

The referenced workpaper contains historical forced outage rates for each MECO generating unit. Please explain why the forced outage rates by type of generating unit were used for the 2007 test year rather than for each individual generating unit.

CA-IR-75

**Ref: MECO-WP-404, page 92.**

The referenced workpaper contains historical maintenance outage rates for each MECO generating unit. Please explain why the maintenance outage rates by type of generating unit were used for the 2007 test year rather than for each individual generating unit.

CA-IR-76

**Ref: MECO-WP-404, page 99.**

The referenced workpaper contains the test year 2007 estimate of purchased energy from HC&S. Footnotes 2 and 3 indicate that the amounts of Optional Additional energy and Supplemental energy were estimated using January 2004 through December 2005 actual.

- a. Please provide the actual amounts of Regular (On-Peak and Off-Peak), Optional Additional, and Supplementary energy

purchased from HC&S by month from January 2004 to the present.

- b. Please provide all calculations and supporting documentation for the calculation of the estimated test year 2007 amounts of Optional Additional and Supplemental energy.

CA-IR-77

**Ref: MECO-WP-404, page 4, MECO-WP-405, page 3.**

MECO-WP-404, page 4 lists the fuel expense for the Hana plant as \$17,800. Please explain why the Hana fuel expense is not included in MECO-WP-405, page 3 to calculate ocean cargo insurance expense.

**Witness T-5 Mr. Ribao.**

CA-IR-78

**Ref: MECO-WP-504-d – (MECO Monthly Availability/Reliability Reports).**

According to Note 2, MECO prepares a "Monthly Availability/Reliability Report." Please provide complete copies of these reports for all available months of 2004, 2005, 2006 and 2007, to date.

CA-IR-79

**Ref: MECO T-5, page 3, lines 14-22 – Changes in Generating Capacity.**

In testimony, Mr. Ribao references changes in MECO generating capacity from commercial operation of M17, M19 and M18. Please provide the following information on a comparable basis for each of these units:

- a. Describe the performance and acceptance testing that was performed and explain each of the specific criteria that were satisfied before the unit was declared commercially operable by MECO.
- b. State the date that AFUDC was discontinued.
- c. Provide total annual operating hours in each year for each unit since commercial operation commenced (provide monthly data for M18 to date).

- d. Provide copies of correspondence to contractor(s) describing each of the performance issues that were encountered during acceptance testing for the unit.
- e. Describe the applicable warrantee coverage(s) and explain the required inspection intervals associated with warrantee provisions, if any.

CA-IR-80

**Ref: MECO T-5, page 6 – As Available Purchased Power.**

Please provide the monthly amount of energy purchased by MECO from KWP and from Makila since these facilities commenced operation.

CA-IR-81

**Ref: MECO-WP-505 – Overhaul Normalization Calculations.**

Please provide complete copies of reports, analyses, quotations, maintenance directives and other documents reviewed and/or relied upon by MECO to develop the Maintenance Frequency/Overhaul Interval values and the Historical Overhaul Cost input values for each unit, to the extent not previously provided in response to Consumer Advocate information requests. If this information is presented within the Company's CA-IR-1 or CA-IR-2 responses, please provide pinpoint citations into the support for each of the values used for each unit outage.



CA-IR-82

**Ref: MECO-WP-506 – Production O&M Comparative Data.**

Please update this Schedule, including an additional "2006 Recorded" column of data, and revising column G to compare the 2007 budget to 2006 Actual data (provide Excel electronic format and hard copy).

CA-IR-83

**Ref: MECO-WP-502, (Production O&M Details).**

Please provide a complete copy of this report in magnetic media (Excel format), adding a column with 2006 Actual recorded expense amounts.

CA-IR-84

**Ref: MECO T-5, page 24, line 14 (Overhaul Normalization).**

According to the testimony, "Power generating unit overhauls occur at various intervals based on running hours and operating conditions and at different costs, depending on the type of unit and overhaul performed." Please provide a summary of the overhaul history for each MECO generating unit, describing the type of overhauls done historically and itemized labor and non-labor costs for each overhaul that has occurred in the years 1998 through 2006.

CA-IR-85

**Ref: MECO-WP-504-d, (NOX Water Costs).**

This workpaper calculates NOX Water Costs as a ratio of fuel burn quantities. Please provide the following information with respect to these calculations:

- a. Provide a description of the specific types and quantities of chemicals and other material costs (EE=201) incurred historically by MECO and included in the 2007 budget for NOX water.
- b. Provide a description of the specific types and quantities of outside services costs (EE=501) incurred historically by MECO and included in the 2007 budget for NOX water.
- c. Provide an expanded calculation including 2006 actual cost and fuel burn data, in the format of WP-504-d.
- d. Please explain how the new EDI unit will impact historically incurred cost levels, quantifying how the prior years' chemical and resin costs reflected in WP-504-d are expected to be impacted.

CA-IR-86

**Ref: MECO-WP-504-e, WP-509-a, b, c (Lube Oil Expenses).**

Please provide the following information with respect to lube oil expenses:

- a. A detailed description of each type of lube oil that is needed for individual units operated at each generating station.

- b. Annual historical lube oil quantities consumed for oil changes and for operational usage, by type of oil and by station for each year 2003 through 2006 and for 2007 actual, to date.
- c. Annual dollar costs of historical lube oil consumed for oil changes and for operational usage, by type of oil and by station for each year 2003 through 2006 and for 2007 actual, to date.
- d. Provide copies of documentation relied upon for lube oil unit prices included in test year expense by MECO.
- e. Explain whether MECO purchases lube oil at market prices or pursuant to any term or contract pricing.
- f. Provide copies of documentation supporting the most recent actual prices paid for each type of lube oil used by MECO.

CA-IR-87

**Ref: MECO-WP-504-f and WP-504-g, (Maalaea/Palaau Structural Maintenance).**

Please provide the following information associated with structural maintenance:

- a. Update WP-504-f and 504-g (pages 1 and 2) to include a full year of 2006 actual expenditures.
- b. Explain historical actual activities for "out of service" tank inspections, indicating the dates and costs for the most

recent tank inspections actually performed at Palaau and Maalaea.

- c. Explain historical actual activities for tank farm painting (Note 4 on WP-504-g), indicating the dates and costs for the most recent painting actually performed at Palaau and Maalaea.
- d. Describe the work done and costs incurred noted on WP-504-f, page 2 as NARUC 552 MGD 271 MTF NE 501 in the amount of \$117,981.

CA-IR-88

**Ref: MECO T-5, page 13, line 26; pages 36-40 – (Production Operations Labor).**

According to the testimony, "The labor portion of this forecast is based upon our estimate of the work requirements. Specifically, the staffing required to operate and supervise MECO's generating facilities." Please provide the following information:

- a. Actual staffing levels (headcounts) in each production operations RA, by position for each calendar quarter of 2004, 2005, 2006 and 2007, to-date.
- b. Comparable test year proposed staffing levels in each production operations RA, by position.
- c. Actual incurred straight time and overtime labor hours for each labor category (each line item) of your response to part (a) of this information request for each calendar quarter

of 2004, 2005, 2006 and comparable hours data included in the Company's test year 2007 rate case forecast.

- d. To the extent historical quarterly actual staffing levels in your response to part (a) of this information request are significantly below the test year proposed staffing levels, please explain and quantify whether staffing shortages were "made up" by expanded overtime, with reference to the information in your response to part (c) of this information request where such hours can be observed.
- e. To the extent historical quarterly actual staffing levels in your response to part (a) of this information request are significantly below the test year proposed staffing levels, and staffing shortages were not "made up" by expanded overtime, please explain and quantify whether work levels were significantly different historically.
- f. To the extent historical actual quarterly labor hours in your response to part (c) of this information request are significantly below the Company's projected test year straight time and overtime labor hours, please explain and quantify the amounts of any contract labor or outside services in each quarter that was required to "make up" for staffing shortages.

- g. If your response to part (f) of this information request is that no identifiable contract labor or outside services were required to make up for labor shortfalls, please explain and quantify whether work levels were significantly different historically, in comparison to test year levels.

CA-IR-89

**Ref: MECO T-5, page 21, line 5; and pages 36-40 - (Production Maintenance Labor).**

According to the testimony, "Production maintenance labor expense was determined by estimating the work requirements and the staffing necessary to perform this work." Please provide the following information:

- a. Actual staffing levels (headcounts) in each production maintenance RA, by position for each calendar quarter of 2004, 2005, 2006 and 2007, to-date.
- b. Comparable test year proposed staffing levels in each production maintenance RA, by position.
- c. Actual incurred straight time and overtime labor hours for each labor category (each line item) of your response to part (a) of this information request for each calendar quarter of 2004, 2005, 2006 and comparable hours data included in the Company's test year 2007 rate case forecast.
- d. To the extent historical quarterly actual staffing levels in your response to part (a) of this information request are

significantly below the test year proposed staffing levels, please explain and quantify whether staffing shortages were "made up" by expanded overtime, with reference to the information in your response to part (c) of this information request where such hours can be observed.

- e. To the extent historical quarterly actual staffing levels in your response to part (a) of this information request are significantly below the test year proposed staffing levels, and staffing shortages were not "made up" by expanded overtime, please explain and quantify whether work levels were significantly different historically.
- f. To the extent historical actual quarterly labor hours in your response to part (c) of this information request are significantly below the Company's projected test year straight time and overtime labor hours, please explain and quantify the amounts of any contract labor or outside services in each quarter that was required to "make up" for staffing shortages.
- g. If your response to part (f) of this information request is that no identifiable contract labor or outside services were required to make up for labor shortfalls, please explain and quantify whether work levels were significantly different historically than projected in the test year.

CA-IR-90

**Ref: MECO-WP-508, (Production Materials Inventory).**

- a. Please provide updated monthly actual inventory balances by location for all available months of 2006 and 2007, to date.
- b. Does MECO conduct periodic physical inventories of production materials to verify recorded amounts?
- c. Please provide a summary of physical inventories at each location and provide copies of journal entries recording the results of such inventory verification work.
- d. Are any production department inventory materials obsolete or unusable?
- e. If your response to part (d) of this information request is affirmative, provide an itemized listing of the carrying cost of obsolete or unusable materials by location for the test year.
- f. Explain and itemize the individually large purchases that comprise the projected increases in inventory at Maalaea Power Plant (See WP-508, page 2 in 2007).

CA-IR-91

**Ref: MECO T-5, page 2, lines 15 to 17 –(Management of Power Supply).**

- a. Please confirm that Production Department budget comparisons and variance analyses are prepared on a monthly basis and put into a monthly report to Mr. Reinhardt (as stated in interview).



- b. Please provide complete copies of all of the monthly reports to Mr. Reinhardt that were prepared in 2006 and 2007, to date.

CA-IR-92

**Ref: Response to CA-IR-1, MECO T-5, Attachment 9 – (MGD Projected Labor Hours).**

- a. Please provide calculations and detailed supporting information for the input overtime hours on Attachment 9, page 6 of 390 hours for GDSUPV, 7,116 hours for GDMANT and 390 hours for GDMATL.
- b. Provide electronic spreadsheet files for the standard overhaul calculations at pages 7 through 12, indicating:
  - 1. which values for each overhaul were carried forward into labor input hours,
  - 2. which materials costs (EE=201) were carried forward into MGD non-labor expense projections for the test year, and
  - 3. which outside services (EE=501) costs were carried forward into MGD non-labor expense projections for the test year.
- c. Identify and describe which of the test year projected overhauls involve capital work, for which labor hours were charged to NI indicators.

- d. Confirm that no normalization adjustments were made by MECO to restate projected 2007 overhaul schedules and work scope, even though non-labor overhaul costs were normalized.

CA-IR-93

**Ref: Response to CA-IR-1, MECO T-5, Attachment 10 – (MGE Projected Labor Hours).**

- a. Please provide calculations and detailed supporting information for the input overtime hours on Attachment 10, page 5 of 312 hours for GESUPV and 3,612 hours for GEMANT.
- b. Provide electronic spreadsheet files supporting the overhaul labor hours for MGE, indicating:
  - 1. Which values for each overhaul were carried forward into labor input hours;
  - 2. Which materials costs (EE=201) were carried forward into MGE non-labor expense projections for the test year; and
  - 3. Which outside services (EE=501) costs were carried forward into MGE non-labor expense projections for the test year.
- c. Identify and describe which of the test year projected overhauls involve capital work, for which labor hours were charged to NI indicators.

- d. Confirm that no normalization adjustments were made by MECO to restate projected 2007 overhaul schedules and work scope, even though non-labor overhaul costs were normalized.

CA-IR-94

**Ref: Response to CA-IR-1, MECO T-5, Attachment 7 – (MGB Projected Labor Hours).**

- a. Please provide calculations and detailed supporting information for the input overtime hours on Attachment 7, page 6 of 238 hours for GBSUPV, 12 hours during non-overhaul months plus overhaul hours for GBMANT and 202 hours for GBMATL.
- b. Provide electronic spreadsheet files supporting the overhaul labor hours for MGB, indicating:
  - 1. Which values for each overhaul were carried forward into labor input hours, and
  - 2. Which materials costs (EE=201) were carried forward into MGB non-labor expense projections for the test year.
  - 3. Which outside services (EE=501) costs were carried forward into MGB non-labor expense projections for the test year.

- c. Identify and describe which of the test year projected overhauls involve capital work, for which labor hours were charged to NI indicators.
- d. Confirm that no normalization adjustments were made by MECO to restate projected 2007 overhaul schedules and work scope, even though non-labor overhaul costs were normalized.

CA-IR-95

**Ref: Response to CA-IR-1, MECO T-5, Attachment 11 – (MGK Projected Labor Hours).**

- a. Please provide calculations and detailed supporting information for the input overtime hours on Attachment 11, page 6 of 406 hours for GKSUPV and 3,496 hours for GKOPER.
- b. Provide electronic spreadsheet files supporting the assumed overhauls and allocation of MGK labor hours to each overhaul.
- c. Explain the accounting for holidays worked, indicating whether additional hours are included or only labor costs for paid holidays worked.
- d. Explain and provide supporting documentation for the addition of 420 hours for "estimated FMLA sick time."

CA-IR-96

**Ref: Response to CA-IR-1, MECO T-5, Attachment 13 – (MGM Projected Labor Hours).**

- a. Please provide calculations and detailed supporting information for the input overtime hours on Attachment 13, page 5 of 932 hours for GMSUPV, 168 for GMMSUP and 2,800 hours for GMOPER.
- b. Provide calculations and detailed supporting information for the input sick hours on Attachment 13, page 5 of 1,600 hours for GMOPER.
- c. Explain and provide supporting documentation for the addition of 400 hours for "estimated FMLA sick time" for GMOPER, in addition to the 1,600 hours for "normal" sick time.

CA-IR-97

**Ref: Response to CA-IR-1, MECO T-5, Attachment 14 – (MGT Projected Labor Hours).**

- a. Please provide calculations and detailed supporting information for the input overtime hours on Attachment 14, page 5 of 744 hours for GTSUPV and 274 hours for GTOPER.
- b. Provide electronic spreadsheet files supporting the assumed overhauls and allocation of MGT labor hours to each overhaul.

- c. Explain the accounting for holidays worked, indicating whether additional hours are included or only labor costs for paid holidays worked.

CA-IR-98

**Ref: CA-IR-1, T-5 – Power Supply Department Labor Spreadsheet Calculations.**

- a. Please confirm or clarify the following understandings from interviews of MECO production department personnel:
1. MECO Power Supply Department employee counts have been relatively stable for many years and are not proposed to change, except for the addition of two positions described at T-5, page 24.
  2. MECO's rate case forecast assumes no vacancies for any of the 123 employees forecast in the test year.
  3. Available labor hours for the assumed staffing level are converted into available hours, assuming estimated amounts of overtime as well as estimated amounts of non-productive holiday, vacation and sick pay.
  4. Available operator and administrative hours are generally "spread" across activity codes, based upon historical distributions of such hours.

5. Total available maintenance hours are compared to overhaul schedules and any hours not required for overhauls can be used for general plant maintenance.
  6. If overhaul schedules cannot be met with internal staff, may need to defer general maintenance, use contractors or take risks associated with deferring an overhaul.
  7. There is always a backlog of non-project plant maintenance work, some of which can be scheduled to do during a scheduled overhaul, some during a shorter maintenance outage and other projects do not require an outage.
  8. There are also work requirements for capital projects documented in PIA/PIF forms, where staff can charge hours to capital accounts (Indicator NI or NR).
- b. Please provide, for the 2007 test year forecast and for historical years 2004, 2005 and 2006, a comparative summary of total hours worked for each RA, broken down in the following categories for each RA in each year:
1. Total expensed labor hours – straight time.
  2. Total expensed labor hours – overtime.
  3. Total capitalized labor hours – straight time.
  4. Total capitalized labor hours – overtime.

5. Total compensated absence hours (holiday, vacation, overtime).
6. Any additional categories of labor hours required to equal total paid hours.

CA-IR-99

**Ref: CA-IR-2, T-5; Attachments 1,3,4,19 (Non-Labor ICB Charges from HECO).**

- a. Please confirm that each of the referenced charges allocated into the MECO non-labor budget conform to the pending HECO rate case budget assumptions and cost distributions (HECO Indicators BE).
- b. Please provide actual comparable historical HECO-charged amounts for each category of service to MECO for the years 2003, 2004, 2005 and 2006 in relation to the test year proposed expense levels.
- c. Explain the reasons for any significant fluctuations in historical charges or apparent inconsistencies with the proposed test year charges, indicating whether further adjustment is required for any items.

CA-IR-100

**Ref: CA-IR-2, MECO T-5; Attachment 76; (KPP Berm Wall).**

Please explain why this work described in March 2005 estimate documentation was not funded and completed prior to the 2007 test year and explain all reasons why such work is reasonably viewed



as normal, recurring and not properly normalized to account for the relative infrequency of such activity.

CA-IR-101

**Ref: CA-IR-2, MECO T-5; Attachments 7, 39, 130, 137, 139, 180, 272, 274, 318, 319, 370, 371, 408, 412, 414 (Historical Materials/Services Spreadsheets).**

Please provide updated materials and services spreadsheets in Excel electronic format that include actual years 2001 through 2006 and to-date 2007, summarizing historical expenses sorted by RA and Activity in the format used by Company personnel to develop the test year forecasts within each RA.

CA-IR-102

**Ref: CA-IR-2, MECO T-5; Attachment 76; (KPP Berm Wall).**

Please explain why this work described in March 2005 estimate documentation was not funded and completed prior to the 2007 test year.

CA-IR-103

**Ref: CA-IR-2, MECO T-5; Attachment A; MECO-WP-502 (Non-labor Overhaul Expenses).**

Please provide detailed calculations reconciling the IR-2 Attachment A listing to the amounts shown in column F of MECO-WP-502, indicating the criteria used to isolate projected non-labor overhaul forecasted costs for purposes of the Company's normalization adjustment.

CA-IR-104

Ref: CA-IR-2, MECO T-5; Attachment 30 (Emission Fees).

Please provide detailed assumptions and calculations supportive of the Company's test year proposed emission fees for each generating station, indicating whether fuel burn rates are synchronized with test year fuel expense calculations and explaining how/if historical waivers of fees have been considered in such calculations.

**Witness T-6 Mr. Herrera.**

CA-IR-105

**Ref: MECO T-6, pages 2-3 (T&D O&M Cost Drivers).**

Beginning at line 16 of page 2, T-6 describes four major drivers that contribute to the \$1.7 million variance between the 2007 test year and 2005 actual T&D O&M. Please provide the Company's best estimate of the portion of the \$1.7 million difference attributable to each of the four major drivers (i.e., vegetation management, steel pole maintenance, inspections and improved systems).

CA-IR-106

**Ref: MECO T-6, pages 11-12 & 25-27 (Steel Pole Inspections).**

At page 12, T-6 identifies several factors contributing to the increase in Transmission operation expense between 2005 and 2007, including increased coverage required for inspections of transmission facilities and steel poles discussed in greater detail at page 25. Please provide the following:

- a. When did MECO first become aware of the need to increase the resources committed to inspecting steel poles? Please explain.
- b. When did MECO first initiate increased inspections of the steel poles? Please explain.
- c. Have any studies or analyses been prepared by, or for, MECO to address inspection cycles or the related cost/benefit of alternative inspection cycles? Please explain.

- d. Please identify and describe the processes or procedures that have been or will be implemented with regard to the planned inspection of steel poles.
- e. Please provide a breakdown of the 383 steel pole count (T-6, page 25) by vintage year of addition to plant in service.

CA-IR-107

**Ref: MECO T-6, pages 11-12 & 25-27 (Steel Pole Inspections).**

At page 26, T-6 indicates that Hawaii's "environment of salt, high ultraviolet radiation and wind has begun to deteriorate the condition of these first generation steel pole finishes." Please provide the following:

- a. Has MECO commenced installation of second generation steel poles? Please explain.
- b. How does, or would, the second generation steel poles differ from the first generation poles? Please explain.
- c. Are the second generation steel poles expected to better "weather" Hawaii's environment? Please explain.
- d. Does the 2007 test year plant addition forecast (see MECO-WP-1401) include any first or second generation steel poles? Please explain.
- e. Please provide the forecasted quantity and installed cost of the 2007 test year steel pole plant additions.

- f. Has this deterioration of steel poles been discussed with and/or experienced by HELCO or HECO? Please explain.

CA-IR-108

**Ref: MECO T-6, pages 11–12 & 25-27 (Steel Pole Inspections).**

Referring to page 26 of T-6 and MECO-WP-608B, page 3, it appears that MECO's 2007 rate case forecast includes \$364,404 for the inspection and maintenance of 100 steel poles. Please provide the following:

- a. Please confirm that MECO's 2007 rate case forecast includes inspection and maintenance costs for 100 steel poles. If this cannot be confirmed, please explain.
- b. Please confirm that MECO is proposing to implement a four year inspection and maintenance cycle (i.e., 383 poles divided by 100 poles per year) designed to rehabilitate and extend the service life of existing steel poles. If this cannot be confirmed, please explain.
- c. After the initial four year cycle is completed, please discuss when the next inspection and maintenance cycle will likely commence.
- d. Is any of the planned work on the steel poles expected to be capital rather than maintenance work? Please explain.
- e. Please compare the proposed inspection and maintenance budget of \$364,404 for 100 steel poles with both the original

cost of installed steel poles and the current cost of installing current generation steel poles.

CA-IR-109

**Ref: MECO-620A, page 1 & HECO T-6 response to CA-IR-2 (T&D Rental Fee Expense Variance).**

Item B of MECO-620A (original & revised) indicates that MECO has not made rent payments for Camp Maui Substation in Haiku since June 2000 and that the \$49,200 test year forecast includes estimated rent of \$1,000 per month plus potential back payments for 2001 through 2006. Please provide the following:

- a. Please provide a copy of the lease agreement that expired in or around 2001.
- b. Please summarize the current status of the negotiations with the property owners regarding the referenced new lease extension, including an estimate of which such negotiations are expected to be concluded.
- c. Referring to CA-IR-2, Attachments 6C (page 33) and 6F (page 7), please provide a breakdown of the \$49,200 rent expense included in the 2007 test year forecast between the forecast year lease cost and unpaid rent for prior years.
- d. Please provide the amount of the lease or rental fee included in the Company's last rate case for its Camp Maui Substation in Haiku, by NARUC account. If none, please explain.

- e. Please explain why the Company believes that ratepayers should be responsible, prospectively, for any back lease payments associated with calendar years 2001-2006.

CA-IR-110

**Ref: MECO-620A, page 2 (T&D Steel Pole Expense Variance).**

Items F (original) and E (revised) of MECO-620A indicates that MECO's \$150,000 for steel pole maintenance "was based on a rough verbal estimate obtained from JD Painting and March Painting in 2005 due to the inability to predict the actual labor requirements until project is underway and experience is gained by the contractor." However, a 2007 updated bid price is \$9,145 per pole, but the 2007 costs will not exceed \$150,000. Please provide the following

- a. Please confirm that the steel pole maintenance program has not yet commenced.
1. If this cannot be confirmed, when did the work commence?
  2. If the work has not yet commenced, when is it expected to start?
- b. Referring to part (a) above, please provide the actual costs incurred thus far in 2007, if any, for the steel pole maintenance program and identify the related count of poles on which work has progressed.

- c. Referring to part (b) above, please provide a copy of the contractor invoices.

CA-IR-111

**Ref: MECO T&D Exhibits (2006 Actuals).**

Please update the following exhibits and workpapers to incorporate actual 2006 values:

- a. MECO-WP-602A, MECO-WP-602B, MECO-603, MECO-604, MECO-606, MECO-608 and MECO-621 (O&M expense).
- b. MECO-610 (T&D plant).
- c. MECO-616 and MECO-WP-616A (Staffing).
- d. MECO-618 (Inventory).
- e. MECO-620 (expense variance).
- f. MECO-621 (comparison of T&D expense).
- g. MECO-622 and MECO-WP-622 (Vegetation management).

CA-IR-112

**Ref: MECO-616, MECO-WP-616A & MECO-1102 (Staffing).**

Please the following additional headcount data for all departments, not just T&D. [Note: MECO T-6 and/or T-11 may choose to provide the requested information, as MECO-WP-616A and MECO-1102 appear to contain similar information.]:

- a. Please provide actual staffing levels by month in a format comparable to MECO-WP-616A and MECO-1102 (i.e., by



department, by RA and by island) for calendar years 2005, 2006 and 2007 to date.

- b. Referring to part (a) above, please supplement the requested staffing levels as additional monthly data becomes available in 2007.
- c. Please provide budgeted staffing levels by month in a format comparable to MECO-WP-616A and MECO-1102 (i.e., by department, by RA and by island) for calendar years 2004, 2005 and 2006.
- d. Please provide budgeted staffing levels by month in a format comparable to MECO-WP-616A and MECO-1102 (i.e., by department, by RA and by island) for MECO's 2007 test year forecast.

CA-IR-113

**Ref: HECO T-6, pages 20 & 38 (T&D Labor Requirements).**

Beginning at page 20, line 3, HECO T-6 provides the following explanation of how direct labor costs are budgeted, including reference to the level of work required to complete specific tasks (i.e., labor or work requirements):

The standard unit of measurement in the T&D O&M estimate is a "man-hour". In other words, the labor requirements to complete a specific task are determined based on the estimated number of man-hours that it will take to complete that task. The man-hours are then converted to direct labor dollars by multiplying the man-hours by the applicable wage rates in the Pillar System.

At line 14 of page 38, MECO T-6 also states:

The increased staffing is necessary to address increased system requirements as a result of the labor demands that continuing growth and the increasing age of the utility plant creates, to meet growing customer demand, to account for the loss of technical knowledge and experience of existing staff, and to implement new projects to ensure the continued reliability of the system.

Please provide the following:

- a. Please confirm that T&D refers to "work requirements" as "labor demand." If this cannot be confirmed, please explain.
- b. Please confirm that labor demand arises from: capital projects (engineering); system repairs; trouble calls; regular O&M on substations, transmission lines and distribution lines; and backlog work. If this cannot be confirmed, please explain.
- c. Please confirm that any excess labor demand must be met by overtime work, contractors or project deferrals. If this cannot be confirmed, please explain.
- d. Please provide a descriptive listing of the specific tasks or work/system requirements (e.g., inspection cycles, number of inspections, number of times equipment is operated, etc.) that were specifically relied upon in developing the 2007 T&D labor forecast and included in MECO T-6 response to CA-IR-2.

CA-IR-114

**Ref: MECO-WP-622 (T&D Vegetation Management).**

MECO-WP-622 provides a historical comparison of test year Distribution vegetation management expense with prior years.

Please provide the following:

- a. Please confirm that MECO-622 and MECO-WP-622 do not include all vegetation management costs, only charges to transmission Account 593 (i.e., charges to distribution Account 571 were excluded). If this cannot be confirmed, please explain.
- b. Please revise MECO-622 to include all Transmission (Activity 355) and Distribution (Activity 494) vegetation management costs, including 2006 actual and budget amounts.
- c. Please revise MECO-WP-622 to include all Transmission (Activity 355) and Distribution (Activity 494) vegetation management costs, including 2006 actual and budget amounts.

CA-IR-115

**Ref: MECO-620A (original), page 4 (T&D O&M Variances-Corrections).**

Items P, Q and R of MECO-620A (original) briefly refer to previous incorrect charging of labor to capital accounts, which was corrected in 2005 and 2006. Please provide the following:

- a. Please explain and describe the nature of the original errors that were corrected.
- b. When did the errors originate?
- c. It is unclear whether correcting entries were recorded in 2005 or 2006 or in both years. Please explain.
- d. Referring to part (c) above, did the corrections (whenever recorded) include amounts relating to prior years? Please explain.
- e. Referring to parts (c) and (d) above, please provide the amount of any corrections recorded in 2005 and 2006 by NARUC account, including a breakdown of the correction by calendar year in which the errors originated.

CA-IR-116

**Ref: MECO-620A, page 4 (T&D O&M Variances - Deferrals).**

Items P, Q and R of MECO-620A (original) and Item O of MECO-620A (revised) briefly refer to increases in additional maintenance due to the deferral of capital projects to replace aging buried cables. Please provide the following

- a. Please identify the specific capital projects that were deferred.
- b. Referring to part (a) above, when were the identified capital projects initially planned to be undertaken? Please explain.

- c. Referring to part (a) above, what was the amount of each capital project initially deferred?
- d. Referring to part (a) above, have any of the deferred capital projects been subsequently scheduled and completed? If so, provide the completion date and the capital project amount. If not, please explain.
- e. Referring to part (a) above, are any of the deferred capital projects included in the 2007 forecast as completed projects detailed on MECO-WP-1401? If so, please provide the following:
  - 1. identify each related project by number,
  - 2. provide the estimated completion date, and
  - 3. provide the capital project amount.
- f. Once the capital projects are completed, please provide the amount of maintenance expense included in the 2007 test year forecast, if any, that will be avoidable, showing all calculations.

CA-IR-117

**Ref: MECO T-6, page 34 (T&D Staffing).**

At lines 3-21, HECO T-6 discusses how T&D has been able to manage staffing shortfalls (i.e., use of outside contractors, deferral of projects, use of overtime, and recruitment to backfill vacant positions). In addition, T-6 states that "[m]any of the actions taken

to manage staffing shortages either directly or indirectly increase O&M costs, which in turn offset wage and benefit savings created by open positions." Please provide the following:

- a. Assuming Commission adoption of the average employees (i.e., 110 T&D and 31 Engineering per MECO-616) forecasted for the 2007 test year, would such employee count have reasonably reduced MECO's historical reliance on outside contractors during 2004, 2005 and 2006?
  1. If so, please provide the actual O&M expense for outside contract services during 2004, 2005 and 2006 and quantify the reduction to such T&D expenses that could have been achieved with the forecast employee counts.
  2. Referring to part (a)(1) above, has the reduced reliance on outside contractors been recognized in the 2007 test year forecast? Please quantify any such effect.
  3. Referring to part (a)(2) above, if the 2007 test year forecast does not reflect the expected reduction in outside services, please explain why such effect has not been considered.
- b. Assuming Commission adoption of the average employees (i.e., 110 T&D and 31 Engineering per MECO-616)

forecasted for the 2007 test year, would such employee count reasonably reduce MECO's need to defer projects? Please explain.

- c. Assuming Commission adoption of the average employees (i.e., 110 T&D and 31 Engineering per MECO-616) forecasted for the 2007 test year, would such employee count have reasonably reduced MECO's historical reliance on the use of overtime during 2004, 2005 and 2006?
1. If so, please quantify the expected reduction to T&D overtime could have been achieved during 2004, 2005 and 2006 with the forecast employee counts.
  2. Referring to part (c)(1) above, has the reduced use of overtime been recognized in the 2007 test year forecast? Please quantify any such effect.
  3. Referring to part (c)(2) above, if the 2007 test year forecast does not reflect the expected reduction in overtime, please explain why such effect has not been considered.

CA-IR-118

**Ref: MECO-WP-622 & CA-IR-2 (Vegetation Management).**

The referenced workpaper provides a historical comparison of distribution vegetation management costs (Activity 494) during the period 1999 to 2005 (actual), 2006 (budget) and 2007 (forecast),

excluding similar amounts of transmission vegetation management costs (Activity 355). MECO-WP-622 shows 2006 budget rather than actual amounts. Please provide the following:

a. Referring to MECO T-6 response to CA-IR-2, Attachment 12A, please confirm that the following amounts reflect actual 2006 distribution (Activity 494) vegetation management expenses. [If any of the following amounts cannot be confirmed, please explain.]

1. Maui \$459,361.
2. Lanai \$17,598.
3. Molokai \$61,077.

b. Referring to MECO T-6 response to CA-IR-2, Attachment 12A, please confirm that the following amounts reflect actual 2006 transmission (Activity 355) vegetation management expenses. [If any of the following amounts cannot be confirmed, please explain.]

1. Maui \$59,665.
2. Lanai \$0.
3. Molokai \$0.



CA-IR-119

**Ref: MECO-622 & MECO-WP-622 (Vegetation Management).**

Please provide the projected (or budgeted) transmission and distribution vegetation management costs for calendar years 2004 and 2005, by NARUC account.

CA-IR-120

**Ref: MECO T-6, pages 2, 8, 18 & 30 (Vegetation Management).**

During the period 2000-2006, were any vegetation management studies, analyses or status evaluations conducted by, or for, MECO?

a. If so, please provide the following:

1. Please identify and describe the basis for and objective of each study.
2. Please provide a copy of each identified study.

b. If not, please provide the following:

1. When was the most recent vegetation management study conducted by, or for, the Company?
2. Referring to part (b)(1), please provide a copy of such study.
3. Please explain why a similar study was not prepared for purposes of assisting MECO in evaluating the need for and magnitude of the proposed revisions to the 2007 vegetation management program.

CA-IR-121

**Ref: MECO-620A (Vegetation Management).**

Item M of MECO-620A (revised) and Item G or MECO-620A (original) refer to reduced vegetation management expenses in 2005 and 2006 as being below budget, with funds redirected to other Company O&M items. Please provide the following:

- a. How the was this redirection communicated to MECO T&D department? Please explain and provide a copy of any accompanying documentation.
- b. Please confirm that MECO (Maui, Lanai, Molokai) currently plans a trimming cycle that has all T&D areas covered each year. If this cannot be confirmed, please explain.
- c. With reduced vegetation management funding in 2005 and 2006, please describe the extent of trimming coverage actually achieved in those years relative to the planned cycle discussed in part (b) above.
- d. Referring to the redirection of vegetation management costs in both 2005 and 2006, please identify the specific areas in which these T&D funds were applied and used.

CA-IR-122

**Ref: MECO-620A & MECO-622 (Vegetation Management).**

Item M of MECO-620A (revised) and Item G or MECO-620A (original) refer to reduced vegetation management expenses

in 2005 and 2006 as being below budget, with funds redirected to other Company O&M items. Please provide the following:

- a. Please confirm that MECO maintains outage reports that are coded to identify whether the cause was vegetation related. In addition, please confirm that outage problems relating to large storms are separately tracked. If these items cannot be confirmed, please explain.
- b. Please provide the number of vegetation related outages each calendar year during the period 1999-2006.

CA-IR-123

**Ref: MECO-622 & MECO-WP-622 (Vegetation Management).**

Please provide the amount of vegetation management program O&M expenses, by NARUC account, included in overall revenue requirement in MECO's most recent rate cast test year.

CA-IR-124

**Ref: MECO T-6, page 33, MECO-616 & MECO-624 (T&D Labor).**

Please provide the following:

- a. Please provide actual incurred straight time and overtime labor hours for each T&D and engineering department RA labor category for calendar years 2004, 2005 and 2006, as well as the comparable labor hour data included in the Company's 2007 test year rate case forecast. [Note: This

request seeks total labor hours, not labor hours allocated between O&M, capital and other accounts.]

- b. For each RA listed in response to part (a) above, please provide the actual composite O&M/capital ratios in calendar years 2004, 2005 and 2006 as well as the comparable O&M/capital ratio included in the Company's 2007 test year rate case forecast.

CA-IR-125

**Ref: MECO T-6, page 34, & MECO-624 (T&D Overtime).**

MECO-624 provides historical overtime hours, dollars and percents on an annual basis for the period 2001 through 2006 (i.e., for various departments, including T&D). The source for MECO-624 is identified as MECO-1106, revised 1/12/07. Please provide the following:

- a. Please confirm that the 2006 information (overtime hours, overtime dollars & % overtime) reflects actual, not budget, data. If this cannot be confirmed, please update MECO-624 to include 2006 actual data.
- b. Referring to MECO-624, does the T&D information (overtime hours, overtime dollars & % overtime) solely represent O&M data or both O&M, capital and billed to others? Please explain.

- c. The 2006 T&D overtime hours (45,765) on MECO-624 do not tie to either the 2006 budget (23,664 per MECO-1106) or actual (44,590 per MECO-WP-1106) hours provided by MECO T-11. Please explain and reconcile these differences.

CA-IR-126

**Ref: MECO T-6, page 34, & MECO-624 (T&D Overtime).**

MECO-624 provides historical overtime hours, dollars and percents on an annual basis for the period 2001 through 2006 (i.e., for various departments, including T&D). Please provide the following:

- a. Please update MECO-624 to reflect comparable data for the 2007 test year forecast, for all departments not just T&D.
- b. Referring to the response to part (a) above, please provide a pinpoint reference to the data source(s) relied upon in compiling the T&D portion of the response.
- c. Please provide a schedule similar to MECO-624 that shows non-overtime hours and dollars in a similar format, for all departments.

CA-IR-127

**Ref: MECO T-6, page 34, & MECO-624 (T&D Overtime).**

MECO-624 provides historical overtime hours, dollars and percents on an annual basis for the period 2001 through 2006 (i.e., for various departments, including T&D). Please provide the following:

- a. Please confirm that T&D work hours and trends are considered within the department to represent a metric for work requirements. If this cannot be confirmed, please explain.
- b. Unlike MECO-1106 or MECO-WP-1106, which base the overtime percentages on hours worked, the % overtime on MECO-624 is based on dollars. Please explain whether T&D considers monitoring of overtime levels on a dollar based percentage, rather than an hour based percentage, as more indicative of employee work effort or work requirements.
- c. Referring to the spreadsheet file underlying MECO-624, the denominator of the cell formulae calculating the "% Overtime" represents hard input numbers. Please provide additional support for each department and year showing breakdown of the input numbers by types or categories of pay (e.g., straight time pay, overtime or premium pay, nonproductive time, etc.).

CA-IR-128

**Ref: HECO T-6, pages 14 & 18 (EMS Project).**

The referenced testimony briefly discusses increased test year costs attributable to the addition of Energy Management System

(  
(EMS)/(SCADA) historian software costs and annual licensing fees.

Please provide the following:

- a. At pages 20-23, HECO T-7 (Docket No. 2006-0386) discusses the Siemens Energy Management System (EMS) project that will replace the old Rockwell EMS. Does the discussion provided by HECO T-7 similarly apply to MECO or is MECO's fact situation decidedly different from HECO's? Please explain.
- b. Referring to the response to part (a) above, please provide a detailed, historical explanation of MECO's past use of EMS.
  1. When was the new EMS project started?
  2. When was (or will) the new EMS project (be) completed?
  3. Are there any costs related to the new EMS project included in rate base? If so, please explain.
- c. Did MECO participate with HECO in Docket No. 03-0360 wherein the Siemens EMS project was presented to and approved by the Commission?
  1. If so, how does MECO's final cost (or the current estimate if the final cost is not yet known) compare to the cost forecast presented to the Commission? Please explain and provide the referenced amounts.

2. Please provide a copy of all documentation and spreadsheet files supporting MECO's share of the estimated cost of the new EMS, showing allocations.

CA-IR-129

**Ref: HECO T-6 response to CA-IR-2 (EMS Project).**

Referring to CA-IR-2, Attachment 6E (pages 38-47), it is unclear how certain of these workpapers support the new EMS amounts set forth on CA-IR-2, Attachment 5 (page 3, items 135-137). Please provide the following:

- a. Attachment 5, page 3, Item 135 (SCADA Maintenance O/S Services AREVA) 2007 FCST of \$102,500. How is that number supported by or derived from Attachment 6E, pages 38-41?
  1. Referring to Attachment 6E, pages 38-40, it appears that the \$47,300 is for temporary transition and migration services. Please explain whether these costs are considered to be annually recurring.
  2. Referring to part (a)(1) above, please explain why these costs are appropriately included in the test year forecast.
  3. Please provide the status of these support activities, indicating whether the work has been completed or is still planned in 2007.



b. Concerning Attachment 5, page 3, Item 135 (SCADA Maintenance O/S Services AREVA) 2007 FCST of \$102,500, Attachment 6E, page 41, appears to represent an invoice dated 12/8/06 for "Year 2 of a 3-Year Commitment" with payment due 1/7/07. Please provide the following:

1. What software support services are covered by this 3-year commitment? Please explain.
2. Does this invoice have any relationship to the migration support addressed in part (a) above? Please explain.
3. What is the status of MECO's payment of the amount invoiced?

c. Attachment 5, page 3, Item 137 (SCADA Historian Software) 2007 FCST of \$15,375 is supported by Attachment 6E, pages 42-45. Please provide the following:

1. Please confirm that the document titled "EMS/SCADA System Upgrade Project" represents an internally prepared MECO project write-up, not a vendor proposal. If this cannot be confirmed, please explain.
2. When was the document referenced in part (c)(1) above prepared?

3. Page 43 identifies "Blanket Project #M0000229." Referring to MECO-WP-1401E, page 1, the description for this capital project number is "Life Cycle Maintenance 02-03." Are these the same projects or has the EMS/SCADA project number been revised? Please explain.
4. When is the EMS/SCADA projected currently expected to be completed? Please explain.

CA-IR-130

**Ref: HECO T-6, pages 14 & 18 (EMS Project).**

Although the referenced testimony discusses EMS, pages 23-30 of HECO T-7 (Docket No. 2006-0386) addresses the factory acceptance testing of HECO's new Outage Management System (OMS) planned for January 2007, followed by employee training and OMS system ready for dispatcher use in May 2007. At page 27, it was anticipated that the new software would be ready for use in March 2007. Please provide the following:

- a. Is MECO participating in the OMS project? Please explain.
- b. If the response to part (a) above is affirmative, please provide the following:
  1. Please describe the current status of MECO's project implementation.

2. Please provide the impact of OMS on MECO's 2007 test year forecast for both rate base and O&M expense.

CA-IR-131

**Ref: MECO T-6, pages 12, 16, 36 & 39-40 (One Call).**

Referring to page 39, MECO T-6 generally describes Act 141 (codified as Chapter 269E of the Hawaii Revised Statutes) whereby the Commission was required to establish and administer a "One Call" Center by January 1, 2006. At page 40, MECO T-6 identifies \$60,249 of additional One Call related labor and overhead costs included in the 2007 test year forecast (see MECO-WP-608B, page 1, and CA-IR-2, Attachment 6F page 10). The 2007 test year forecast also includes \$22,850 of non-labor costs. Please provide the following:

- a. When was the One Call Center actually implemented on Maui?
- b. Please confirm that MECO uses internal Company personnel to receive and process calls to the One Call Center and to identify MECO's buried facilities, as requested by the calling party. If this cannot be confirmed, please explain.
- c. Please explain how and whether MECO coordinates its One Call activities with other entities that might own buried facilities (e.g., telephone, cable, etc.) on Maui.

- d. Referring to part (c) above, are there any cost sharing arrangements or agreements between the MECO and the owners of other buried facilities? Please explain.
- e. When MECO personnel physically mark the location of buried facilities, is the Company responsible for only identifying MECO's facilities or does the work extend to marking the location of the buried facilities of other entities? Please explain.

CA-IR-132

**Ref: MECO T-6, pages 39-40 & response to CA-IR-2 (One Call).**

Referring to CA-IR-2, Attachment 6F, page 10, the One Call Center non-labor costs of \$22,850 is generally identified as "PUC Fees" and described as follows: "Based pm \$5/call for locates. Actual fees assessed on a per call basis divided among other utilities."

Please provide the following:

- a. Please provide additional documentation showing how the \$22,850 was calculated.
- b. Explain how the actual fees are divided among other utilities.
- c. During 2006, did MECO incur actual labor and non-labor costs associated with One Call? If so, please provide such amounts on a monthly basis, broken down between labor (hours and dollars), overheads and non-labor costs.

CA-IR-133

**Ref: MECO T-6, pages 33-41 (Staffing Levels).**

Beginning at line 15 of page 33, MECO T-6 states that as of December 31, 2006, T&D had an actual employee count of 96 while Engineering had 29. Please provide the following:

- a. Referring to MECO-616 and MECO-WP-616A, please clarify whether the T&D 2007 test year forecast is based on 110 (2007 average) or 111 (2007 year-end) employee count.
- b. Please update the current status of the 2007 forecast T&D positions that are currently vacant.
- c. Please update the current status of the 2007 forecast Engineering positions that are currently vacant

CA-IR-134

**Ref: MECO T-6, pages 27-28 (T&D Plant).**

At page 28, MECO T-7 briefly summarizes various factors (i.e., new customers, customer requests, increased customer loads, reliability improvements, renewable energy initiatives and safety/system security) that contribute to the increase in T&D utility plant. Please provide the Company's best estimate of the amount of the 2007 forecasted T&D plant additions attributable to each factor.

CA-IR-135

**Ref: HECO T-6, pages 33-41, MECO-616 & MECO-624 (T&D Staffing & Outside Services).**

At page 34, T-6 states that the T&D and Engineering Departments were able to manage staffing level shortfalls through the use of

outside contract services, deferral of projects, use of overtime and through recruitment to backfill vacant positions. MECO-616 provides headcount information while MECO-624 provides overtime information. Please provide the following contract services information, segregated between vegetation management and other contract services (if possible):

- a. Please confirm that MECO has not prepared any formal studies or analyses evaluating the historical relationship between employee levels, overtime, contract services and project deferrals. If this cannot be confirmed, please provide a copy of any such studies prepared since 2005.
- b. Please provide actual contract services costs charged to T&D O&M expense in calendar years 2001 through 2006, segregated between vegetation management and other contract services (if possible).
- c. Referring to part (b) above, please provide comparable amounts included in the Company's 2007 test year rate case forecast, segregated between vegetation management and other contract services (if possible).

**Ref: MECO T-6, page 42 & MECO-618 (T&D Inventory).**

MECO-618 compares historical T&D inventory balances with the 2006 budget (August-December) and the 2007 test year forecast.

Please provide the following:

- a. Please update MECO-618 to reflect the actual 2006 monthly inventory balances.
- b. Referring to the spreadsheet file provided by MECO T-6 in support of MECO-618, the amounts in Columns G, H and I represent input values, rather than calculated values based on cell formulae. Please revise this spreadsheet file to include cell formulae showing the derivation of the 2007 forecast balances or separately provide the algorithms necessary to support the input values.
- c. Please identify, quantify and describe the primary factors that caused the 2007 year-end forecast balance (\$4,067,200) to be about \$1.5 million above the 2005 actual year-end balance (\$2,558,681).

**Witness T-7 Ms. Suzuki.**

CA-IR-137

**Ref: MECO T-7, page 9, line 22 - CIS Cost Deferrals.**

Please provide the following regarding the referenced, "approval to defer certain costs related to this project:"

- a. Provide a monthly summary of actual MECO labor and non-labor costs deferred, since the inception of CIS deferral accounting.
- b. For any non-labor cost deferrals identified in your response to part (a) of this information request, provide a breakdown by expense element and identify major payees.
- c. Provide the monthly labor hours deferred, by RA, underlying the labor cost amounts provided in your response to part (a) of this information request.
- d. Explain and provide documentation for the procedures used to isolate costs subject to deferral in connection with the CIS Order.
- e. Confirm that MECO has projected the deferral of 480 hours in RA=MCA at the rate of one hour per week (See MECO-WP-702, page 4) or provide correcting information.
- f. Explain whether or not the MCA deferred hours for the test year require any revision, given your response to parts (a) and (c) of this information request.



- g. Please quantify and describe any one-time labor or non-labor expenses (see CA-IR-2, Attachment B, page 19) that are included in the test year forecast in connection with CIS system work that are not eligible for deferral.

CA-IR-138

**Ref: MECO T-7, pages 29-30, MECO-WP-711 - Uncollectible Write-off Percentage.**

Please provide the following information regarding the uncollectibles ratio proposed by MECO:

- a. Provide an updated electronic spreadsheet including all available actual months subsequent to June 2006.
- b. Explain the effective dates of the numbered "measures to mitigate uncollectible expenses" listed in the testimony.
- c. Provide copies of internal documents used to inform and train employees regarding each of the numbered "measures to mitigate uncollectible expenses" listed in the testimony.

CA-IR-139

**Ref: MECO-WP-712 – pages 1, 3, 5 and 7 (Other Operating Revenues – Present Rates).**

Please provide an updated schedule containing actual 2006 recorded data and explain with a more detailed breakdown the activities that are contained in the lines captioned "Temporary Facilities," "Revenue Protection," and "Other."

CA-IR-140

**Ref: CA-IR-2, Attachment B, pages 47-52 – (Intercompany Billing, Remittance Processing, Forms and Envelopes).**

Please provide complete copies of all HECO forecast calculations, stating assumptions and allocation procedures employed, to estimate and allocate among HECO/MECO and HELCO the projected test year costs for billing, postage, remittance processing, forms and envelopes, indicating any revisions that are needed to the MECO share of same.

CA-IR-141

**Ref: CA-IR-2, Attachment B, pages 58-60 – (Intercompany Forecasts, IRP non-projects).**

Please provide complete copies of all HECO forecast calculations, stating assumptions and allocation procedures employed, to estimate and allocate among HECO/MECO and HELCO the test year costs for forecasting and IRP related work, indicating any revisions that are needed to the MECO share of same.

CA-IR-142

**Ref: MECO-WP-713 – (Customer Deposits).**

Please provide the actual amounts of Customer Deposit balances by month for the period January 2006 through 2007 to-date, for all available additional months.

CA-IR-143

**Ref: MECO-WP-702 –(Labor Detail Reports).**

Please provide complete copies of all underlying analyses, workpapers, projections and historical comparisons used by Company personnel to develop the indicate labor hour distributions shown at pages 1-25, including but not limited to statements of assumptions regarding: available employees and total hours, sick time rates, holiday pay, vacations, overtime percentages and all other input values. [This information was initially requested in CA-IR-1, part d.]

CA-IR-144

**Ref: T-7, page 12, line 8 – (Additional Future Work).**

Please provide a detailed statement of all elements of additional work that is being referenced in the statement, "The 2007 test year labor expense estimate was based on a review of historical data coupled with the Company's knowledge of activities to be performed for ongoing operations and for additional work" and provide complete copies of all studies, analyses, reports, workpapers, projections and other documents used to evaluate and quantify additional work such as for the CIS project and any additional new initiatives.

CA-IR-145

**Ref: T-7, page 26, lines 15-21, MECO-704 – (44% Increase in Account 903 Expenses).**

The testimony explains the proposed large increase in expenses as "...a result of continued growth in the Company's customer base and the corresponding increase in labor costs tied to wage increases, the increased hours worked and the need to add positions...." Please provide comparative customer service monthly or quarterly performance statistics for the period 2005, 2006 and 2007, to date, for each of the performance measures that are maintained and tracked by management in the normal course of business, including (but not limited to) call center performance indicators, customer connection/disconnection service tickets processes, held service order indicators, meters read, meter reading accuracy indicators and outage response time indicators.

CA-IR-146

**Ref: T-7, page 18, line 14 – (AMR Turtle Full Automation).**

Please describe and quantify the labor requirements presently dedicated to AMR meter read manual processes that will be reduced or eliminated when "automatic meter reading is fully automated, including automatic billing which is expected to occur sometime in the first half of 2007." Provide calculations supporting your response.

CA-IR-147

**Ref: T-7, page 8, lines 8-11 - (Customer Accounts Expense Increases).**

Has MECO prepared any studies or analyses to quantify the historical relationship between the number of customer accounts and expense levels to determine which cost elements are variable and the degree of variability? If so, please provide a copy of the most recent study in both hard copy and Excel spreadsheet format, with intact cell formulae.

CA-IR-148

**Ref. MECO T-7, pages 63-64; CA-IR-1, Attachment B; MECO-704, page 3 (Customer Service Staffing).**

Please provide the following:

- a. Monthly actual staffing levels by RA from December 31, 2005 through May 31, 2007, in the format of CA-IR-1, T-7, Attachment B.
- b. Identify which positions in your response to part (a) of this information request are dedicated to DSM work with all labor costs recovered through the surcharge and explain whether than position is to remain vacant.
- c. Identify each vacant approved position within each RA on a monthly basis from December 31, 2005 through May 31, 2007 and explain the status of hiring plans for each vacancy.
- d. Explain all work done to evaluate work requirements and decide upon optimal staffing levels, including the following:

1. Provide updated actual straight time and overtime hours by RA for each year 2001 through 2006 (Using format of MECO-704, page 3).
2. Provide forecasted straight time and overtime hours by RA for test year 2007.
3. Explain why MCZ IRP hours are projected to decline in the 2007 test year, relative to prior years (See MECO-704, page 3).
4. Explain how work requirements are measured and tracked by MECO, with reference to all indications of need for the increased forecasted labor hours in comparing part d(1) of this information request to part d(2).
5. Explain why "Productive Hours" as well as "Overtime Hours" for MCR Service are projected at much higher levels than required historically in MECO-704, page 3.
6. Provide a monthly breakdown of temporary service contractor charges by RA for 2007, to date, indicating the reasons for using such contractors.

**Witness T-8 Ms. Suzuki.**

CA-IR-149

**Ref: T-8, page 33, lines 9-15 - (DSM -- impact of the Energy Efficiency Docket).**

The referenced testimony makes reference to the Energy Efficiency Docket. Please provide the following information:

- a. State with specificity each change that the Company intends to make to its prefiled rate case information as a result of the issuance of Decision and Order No. 23258.
- b. Provide detailed assumptions, calculations and supporting documentation for each element of your response to part (a) of this information request.
- c. What, if any, hiring or staffing decisions have been considered or made by MECO as a result of the issuance of Decision and Order No. 23258.

CA-IR-150

**Ref: MECO T-8, page 34, line 8 and line 16 - (DSM Program Positions).**

According to the testimony at line 8, "To implement its DSM programs, a portion of the labor expenses of the following employees are allocated to the three (3) commercial DSM programs (CIEE, CINC and CICR) and the one residential DSM program (REWH) and are recovered in base rates." At line 16 reference is made to "Costs of three (3) MECO employees dedicated to the administration and implementation of the DSM

programs..." as well as other costs that are "...recovered through the DSM surcharge." Please provide the following:

- a. For each referenced position recovered in base rates, provide a complete copy of the Company's written position description, indicating the skill requirements, activities and responsibilities of that position.
- b. For each referenced position recovered through the DSM surcharge, provide a complete copy of the Company's written position description, indicating the skill requirements, activities and responsibilities of that position.
- c. Please explain the procedures employed and provide complete copies of all internal accounting instructions, training materials, accounting manuals, memoranda and other documents employed by MECO employees to properly isolate and code DSM/IRP expenses between base rate recovery (Activity 713) versus surcharge tariff recovery (Activity 714) accounting categories.
- d. Provide calculations and test year labor cost data for the positions referenced in your response to parts (a) and (b) of this information request, indicating how such amounts are being attributed to base rate recoveries versus DSM surcharge.



CA-IR-151

**Ref: T-8, page 12, line 7 – (Additional Workload).**

Please provide a detailed statement of all elements of additional workload that is being referenced in the statement, "The 2007 test year labor expense estimate was based on a review of historical data coupled with the Company's knowledge of activities to be performed for ongoing operations and for additional workload" and provide complete copies of all studies, analyses, reports, workpapers, projections and other documents used to evaluate and quantify additional work.

CA-IR-152

**Ref: MECO-WP-802, pages 1-11 – (Labor Detail Reports).**

Please provide complete copies of all underlying analyses, workpapers, projections and historical comparisons used by Company personnel to develop the indicated labor hour distributions shown at pages 1-11, including but not limited to statements of assumptions regarding available employees and total hours, sick time rates, holiday pay, vacations, overtime percentages and all other input values. [This information was initially requested in CA-IR-1, part d]

CA-IR-153

**Ref: T-8, page 24, lines 1-3 - (IRP Base Rate Recovery Proposal).**

According to the testimony, "This adjustment reflects the Company's change in its IRP incremental cost recovery method

from recovery through the IRP Clause to recovery through base rates." Please provide the following additional information:

- a. Provide the amounts of actual incurred MECO IRP labor and non-labor expenses in each year 1998 through 2006 that were:
  1. Recovered through IRP surcharges.
  2. Recovered through base rates.
  3. Provide an update of MECO-WP-812, including actual 2006 and year-to-date 2007 through May 31 amounts.
  4. Provide accounting distribution data (NARUC Accounting) for the amounts shown on MECO-WP-812 indicating how much of the amounts shown was deferred and surcharge recovered versus directly expensed for base rate recovery.
- b. Explain whether and why MECO believes that base rate recovery will tend to produce over or under-recoveries of IRP costs from one year to the next, given the concentration of activities and expenses within years when IRP filings are processed.
- c. Explain whether or not the Company's proposed adjustment based upon a 3-year average of incremental IRP costs (actual and budgeted) is believed to be representative of normal, ongoing levels of activity, particularly since the

proposed average cost level exceeds amounts actually incurred in every year prior to 2005.

- d. Provide illustrative calculations of the expected accounting to occur in each month of the 12 month period during which MECO would continue the "IRP cost Recovery adjustment component of the IRP Clause", as referenced at page 28, lines 8 through page 29, line 11.

CA-IR-154

**Ref: MECO-WP-803 – (Non-labor Expenses).**

Please provide a spreadsheet comparing the proposed "2007 Operating Budget" amounts to prior actual expenses in each of the year 2003, 2004, 2005, 2006 and 2007 (to-date through May 31), explaining any individually significant fluctuations or variances in the proposed amounts relative to historical spending levels.

CA-IR-155

**Ref: MECO-804 (Customer Service Expenses w/o IRP & DSM).**

Please provide an updated schedule inserting a column for recorded 2006 actual data and a column for actual year-to-date May 31, 2007 data.

**Witness T-9 Mr. Matsunaga.**

CA-IR-156

**Ref: MECO A&G Exhibits (2006 Actuals).**

Please update the following exhibits and workpapers to incorporate actual 2006 values:

- a. MECO-902 (A&G expense comparison).
- b. MECO-904 (significant variances).
- c. MECO-911 & 912 (affiliate billings).
- d. MECO-913 (insurance & losses).
- e. MECO-916 (miscellaneous general expenses).
- f. MECO-917 (membership expenses).
- g. MECO-918 (research & development).
- h. MECO-922 (A&G maintenance expense).
- i. MECO-927 (abandoned projects).
- j. MECO-928 (pension balances).
- k. MECO-929 (OPEB balances).

CA-IR-157

**Ref: MECO T-9, ppage 78-80 (Standard Labor Rates).**

The referenced testimony generally discusses the use of standard labor rates by MECO, using 2005 information adjusted to reflect overtime and wage rate changes consistent with the 2007 test year forecast. Please provide the following:

- a. Please provide a listing of the standard labor rates, by labor class, input into Pillar for purposes of preparing the 2007 budget.
- b. Are the standard labor rates, by labor class, used by the Company in preparing the 2007 test year forecast different from the standard labor rates input into Pillar for preparing the 2007 budget?
  - 1. If so, please provide a listing of the standard labor rates, by labor class, input into Pillar for purposes of preparing the 2007 test year forecast.
  - 2. Please identify and describe the various changes between the standard labor rates used for 2007 general budgeting purposes and 2007 rate case test year purposes.
- c. Please provide a listing of the standard labor rates, by labor class, actually used by MECO in calendar 2005.
- d. Please confirm that the standard labor rates used for 2007 test year purposes were based on labor hours and payroll dollars for calendar year 2005, which then were adjusted to reflect changes in wage rates and overtime levels through 2007. If this cannot be confirmed, please explain.

- e. Referring to part (d) above, please provide a copy of the source documentation supporting the 2005 labor hours and payroll dollars, by labor class.

CA-IR-158

**Ref: MECO T-9, pages 78-80 (Standard Labor Rates).**

The referenced testimony generally discusses the use of standard labor rates by MECO for accounting and budgeting purposes.

Please provide the following:

- a. Please provide the integrated electronic spreadsheet files (i.e., with cell formulae, workbook tabs and links to other files intact and not converted to values) and other supporting documents used in developing the standard labor rates (hours and dollars), by labor class, actually used by MECO in preparing the 2007 rate case test year forecast. Such documentation should support and clearly show how wage increases and overtime adjustments were considered in developing the standard labor rates, by labor class.
- b. In quantifying the Standard Labor Rates applied in the 2007 test year forecast, did MECO develop said rates by dividing actual 2005 regular and overtime pay (as adjusted for subsequent wage and salary increases) by actual 2005 productive hours? Please explain.

- c. Referring to part (b) above, does the calculation of the standard labor rate exclude both nonproductive pay and hours from the numerator and denominator? Please explain.
- d. Referring to part (c), please confirm that the calculated standard labor rate, based on productive pay and hours, is also applied to nonproductive hours in the Company's 2007 test year forecast. If this cannot be confirmed, please explain.

CA-IR-159

**Ref: MECO T-9, pages 89-90 and HECO-1021 - (Pension Asset).**

At line 1 of page 90, MECO T-9 states that there is an accumulated deferred income tax reserve balance associated with the pension or OPEB asset/liability amount, which the Company proposes to include in rate base. Please provide the following:

- a. Please provide the amount of the pension asset related ADIT reserve balance included in the beginning and ending test year rate base.
- b. Please confirm that there is no OPEB asset or liability balance included in rate base, so there is no related ADIT reserve balance included in the beginning and ending test year rate base.
  - 1. If this cannot be confirmed, please explain.

2. Referring to part (b)(1) above, please provide a quantification of any OPEB amounts included in the beginning and ending test year rate base.

CA-IR-160

**Ref: MECO T-9, pages 91 & 97, MECO-928 (Pension Asset).**

Please update MECO-928 to reflect actual 2006 activity and any revised estimates for 2007.

CA-IR-161

**Ref: MECO-928 (Pension Asset).**

MECO-928 provides the amount of MECO's HPPC and pension contributions by year since 1987. Please provide the following:

- a. Please confirm that MECO adopted FAS87 in 1987. If this cannot be confirmed, please explain.
- b. Since the adoption of FAS87, please list each MECO rate case, by docket number and test year, in which the Company's overall revenue requirement included FAS87 based NPPC.
- c. Referring to part (b) above, please provide the amount of total NPPC included in each rate case test year forecast, showing allocation between expense and capital (and other billable) accounts.



- d. Referring to part (b) above, please provide the amount of the pension asset or pension liability recognized as a rate base addition or reduction in each rate case test year forecast.
- e. Referring to part (b) above, please provide the amount of pension asset or pension liability related ADIT reserve balance recognized as a rate base addition or reduction in each rate case test year forecast.
- f. Please provide MECO's allocation of the positive \$3.8 million of total NPPC included in the 2007 rate case test year, between expense and capital (and other billable) accounts.

CA-IR-162

**Ref: MECO T-9, page 104, & MECO-928 (Pension Asset).**

One of the ratepayer benefits identified by MECO T-9, at page 104, is that "[t]he negative accruals of the past are negative costs that reduced expenses and lowered revenue requirements, which in turn helped make it unnecessary for MECO to apply for a general rate increase for the seven-year period from 2000 through 2006."

Please provide the following:

- a. Please confirm that the negative accruals referenced in the above testimony are the amounts shown on MECO-928 in calendar years 2000-2002, which total \$(6,041,000). If this cannot be confirmed, please explain.

b. In reaching the revenue requirement conclusion contained in the testimony quoted above, did the Company prepare or cause to be prepared any calculations of overall revenue requirement in calendar years 2000 through 2006?

1. If so, please provide a copy thereof.
2. If not, please explain the basis for the referenced testimony.

CA-IR-163

**Ref: MECO T-9, page 104, & MECO-928 (Pension Asset).**

Beginning at line 18 of page 104, MECO T-9 states: "Furthermore, ratepayers benefited directly in 2002 when MECO recorded a negative \$1,496,000 NPPC accrual in the same year in which MECO also reduced its recovery of DSM shareholder incentives by \$631,400 (net of revenue taxes) in order to not exceed its allowed rate of return as a result of the earnings cap that was implemented with the Commission's Order No. 19093, filed on November 30, 2001, in Docket Nos. 95-0173, 95-0174, 95-0175 and 95-0176."

Please provide the following:

- a. Please provide the amount of net NPPC (i.e., net of allocation to capital and other billable accounts) embedded in the 2002 earnings calculation.

- b. Please provide the workpapers and summary financial data (e.g., operating income, rate base, etc.) associated with the calculation of the 2002 earned return.
- c. Please provide the workpapers and summary financial data associated with the 2002 reduction of \$631,400 (net of revenue taxes) in recoverable DSM shareholder incentives in order to not exceed its allowed rate of return as a result of the earnings cap that was implemented with Commission Order No. 19093.
- d. Referring to part (c) above, Please provide the following:
  - 1. Was the "reduction" a one-time event or annually recurring? Please explain.
  - 2. When was the "reduction" implemented? Please explain.
  - 3. When was the "reduction" terminated? Please explain.
- e. Once NPPC returned to positive values in 2003, did that amount contribute to reduced earnings (net of revenue taxes) that enabled MECO to not exceed its allowed rate of return under the earnings cap implemented with Commission Order No. 19093? Please explain.
- f. Other than the 2002 DSM earnings cap addressed in part (c) above, has MECO implemented any other reductions to

then-existing cost tracking mechanisms, such as ECAC or DSM, designed to flow negative pension costs through to the benefit of its regulated customers at any time since the adoption of FAS87?

1. If so, please identify each docket and decision in which such offsets were implemented.
2. If not, please so state.

CA-IR-164

**Ref: MECO T-9, page 88 (FAS158 Pension Accounting).**

Beginning at page 88, MECO T-9 discusses the pension accounting changes that resulted from the adoption of FAS158.

Please provide the following:

- a. When did MECO adopt FAS158 for financial and regulatory accounting purposes?
- b. For purposes of the 2007 test year forecast, please identify and describe the amount of any balance sheet account activity (i.e., assets, liabilities, deferred income tax reserves or common equity) and journal entries affecting the Company's financial results directly attributable to FAS158. If none, please so state.

**Ref: MECO T-9, page 90 (AOCI Pension Accounting).**

Beginning at page 90, MECO T-9 generally discusses AOCI accounting and describes the then-current status of consolidated a consolidated application filed by HECO, HELCO and MECO on December 8, 2005 (Docket No. 05-0310). On January 26, 2007, the Commission issued Decision and Order No. 23223 denying the relief requested in the joint application. Recognizing that MECO's pending rate case application was filed about one month after the Commission order denying the relief requested in Docket No. 05-0310, please provide the following:

- a. Please clarify whether, subsequent to the issuance of Decision and Order No. 23223, it is or is not the intent of the referenced MECO T-9 testimony to renew MECO's requested relief sought in Docket No. 05-0310 as part of the pending rate case.
- b. If the response to part (b) of this information request is affirmative, please explain.

**Ref: MECO T-9, page 105 (Pension Asset).**

In discussing pension asset accounting under FAS87 and FAS158, MECO T-9 states, at page 105: "If the Company is not allowed a return on the pension asset in rate base or is not allowed to restore equity for the AOCI for ratemaking purposes, these changes would

likely negatively impact the total debt/total capital and funds from operations interest coverage ratios. As discussed further by Ms. Sekimura in section T-17, if the Company is denied either aspect of regulatory support, it would result in lower operating income. Further, this regulatory treatment would presumably be applied to HECO and HELCO which would also result in lower operating income at HECO and HELCO. The consolidated impact of this lack of regulatory support would result in credit quality degradation, which could result in higher cost of capital." Please provide the following:

- a. Has MECO quantified what it believes is the negative impact on total debt/total capital and funds from operations interest coverage ratios that would result if the pension asset were excluded from rate base? Please explain and provide a copy of any supporting documentation.
- b. Has MECO quantified what it believes is the negative impact that would result if it is not allowed to restore equity for the AOCI for ratemaking purposes? Please explain and provide a copy of any supporting documentation.

CA-IR-167

**Ref: MECO T-9, page 97 (Pension Asset).**

At line 15 of page 95, MECO T-9 states: "The estimated pension asset balances as of December 31, 2006 and 2007 represent the

net of the cumulative investor supplied fund contributions in excess of the cumulative previously recognized pension cost." Please provide the following:

- a. Please define "investor supplied funds" as used in this context.
- b. Please identify each specific transaction in which MECO's investors provided the Company with specific funds that were contributed to the pension fund. If none, please so state

CA-IR-168

**Ref: MECO T-9, page 98 (Pension Asset).**

At page 98, MECO T-9 generally describes the circumstances giving rise to the prepaid pension asset, including the following excerpt from lines 12-18: "From 1995 through 1998, because MECO generally funded the primarily declining NPPC, the pension asset balance was not significant. Beginning in 2000 and continuing through 2002, MECO began experiencing negative NPPC accruals. Therefore, although no fund contributions were made in those years, the pension asset grew significantly. In addition, as stated earlier, MECO made fund contributions in 2003 and 2004 that were significantly more than the NPPC, further increasing the pension asset balance." The following also appears at page 98, lines 20-23: "Even though the negative NPPC

accruals in the period 2000 through 2002 increased the pension asset significantly during these years, ERISA prohibited MECO from taking cash refunds from the pension fund. Funds contributed to the pension fund must stay in the pension fund (except under special circumstances such as plan termination)." Please provide the following:

- a. At any time during the period 2000 through 2002, did MECO implement any reductions to its tariff rates to flow the negative pension costs through to the benefit of its regulated customers?
  1. If so, please identify each docket and decision in which such rate reductions were implemented.
  2. If not, please so state.
- b. At any time during the period 2000 through 2002, did MECO implement any refunds designed to flow the negative pension costs through to the benefit of its regulated customers?
  1. If so, please identify each docket and decision in which such customer refunds were implemented.
  2. If not, please so state.



**Ref: MECO T-9, page 99 (Pension Asset).**

Beginning at line 1 of page 99, the following excerpt within MECO T-9's general discussion of the circumstances giving rise to the prepaid pension asset: "Thus, even though MECO's contributions to the pension fund generally matched the NPPC in earlier years, MECO could not take cash from the pension fund to match the negative NPPC accruals in 2000 through 2002." Please provide the following:

- a. Did MECO provide any cash to ratepayers to match the negative NPPC accruals in 2000 through 2002?
- b. If the response to part (a) is affirmative, please provide a detailed explanation of such cash flows to ratepayers and provide copies of all supporting documents.
- c. If the response to part (a) is negative, please so state.

**Ref: MECO T-9, page 102 (Pension Asset).**

The referenced testimony discusses the Company's rationale for including the prepaid pension asset in rate base. Beginning at line 4 of page 102, MECO T-9 states:

Payments made to the pension fund were from the same sources of funds that MECO would use to make any investment; therefore, the cumulative fund contributions were provided by investors. There were no special contributions from any source. Ratepayers do not fund Company investments. Rather, they pay for services and those payments are recorded as revenues. Investor funds are used to fund the

pension plan just as investor funds are used to construct or purchase the gross plant assets. Investors contributed \$27.0 million to the pension plan for the period 1987 to 2005 (see MECO-928 page 1).

Please provide the following:

- a. Please confirm that MECO T-9 concurs that the HPUC establishes utility rates and charges that are cost-based, as determined by the test year employed in periodic rate proceedings. If this cannot be confirmed, please explain.
- b. Please confirm that the revenues MECO collects from utility customers for the services provided are a product of customer usage and the cost-based utility rates. If this cannot be confirmed, please explain.
- c. Please confirm that the revenue MECO collects from its tariff customers does provide the Company with a source of cash flow from utility operations. If this cannot be confirmed, please explain.

CA-IR-171

**Ref: MECO T-9, page 104, & MECO-928 (Pension Asset).**

One of the ratepayer benefits identified by MECO T-9, at page 104, is that "[t]he negative accruals of the past are negative costs that reduced expenses and lowered revenue requirements, which in turn helped make it unnecessary for MECO to apply for a general rate increase for the seven-year period from 2000 through 2006."

Please provide the following:

- a. Please identify each planned application for a rate increase MECO avoided as a result of the negative NPPC.
- b. Please confirm that reductions in other operating expenses or increases in operating revenues between rate cases would also help make it unnecessary for MECO to apply for a general rate increase during the referenced seven-year period. If this cannot be confirmed, please explain.
- c. Please confirm that, in setting utility rates, the HPUC considers all revenue, expense, investment and capital components within a forecasted test year for each filed rate case. If this cannot be confirmed, please explain.
- d. Referring to part (a) above, please provide a copy of all existing documentation demonstrating that the existence of negative NPPC allowed MECO to avoid a rate increase during the referenced seven-year period.

CA-IR-172

**Ref: MECO T-9, page 104 (Pension Asset).**

The referenced testimony discusses the Company's rationale for including the prepaid pension asset in rate base. Beginning at line 24 of page 104, MECO T-9 states: "In addition, some of the negative NPPC was transferred to construction resulting in a lower amount of construction work in progress upon which AFUDC is

accrued and thus, lower costs added to rate base." Please provide the following:

- a. For each year since adoption of FAS87 in 1987, please provide the actual percentage of NPPC that was:
  1. Transferred to capital.
  2. Transferred to outside third parties for services rendered.
- b. In each rate case test year since adoption of FAS87 in 1987, please provide the percentage of NPPC that was:
  1. Transferred to capital.
  2. Transferred to outside third parties for services rendered.

**Witness T-11 Ms. Wachi.**

CA-IR-173

**Ref: T-11, page 2, MECO-WP-1103 (Staffing Counts).**

Please provide the following:

- a. Please provide a breakdown of actual staffing in each major area shown on HECO-WP-1103, for each month of 2005 and 2006.
- b. Please provide a breakdown of actual staffing in each major area shown on HECO-WP-1103, for each month of 2007, to-date.

CA-IR-174

**Ref: T-11, page 2, MECO-1103 & MECO-WP-1103 (Staffing Counts).**

Please provide the following

- a. Explain clarify whether MECO's 2007 test year O&M forecast assumes full employment (no vacancies) for each month, as set forth on MECO-1103 and MECO-WP-1103.
- b. If the response to part (a) indicates that the 2007 test year O&M forecast does not assume full employment (no vacancies) throughout 2007, please state the specific vacancy counts or assumptions that are used in the Company's rate filing.
- c. Provide the amounts of any temporary labor or contractor charges that were incurred by MECO to meet work

requirement caused by any vacant employee positions in 2005, 2006 or 2007, to-date.

CA-IR-175

**Ref: MECO-1106 & MECO-624 (Overtime).**

The spreadsheet file underlying MECO-624 contains a link to data in a spreadsheet file titled "MECO-1106-Overtime (as of Jan 07).xls." Please provide this spreadsheet file, with intact cell formulae.

CA-IR-176

**Ref: MECO T-11, page 7 (Recruitment).**

Beginning at page 8, HECO T-14 (Docket No. 2006-0386) describes HECO's hiring and recruitment process, including a discussion of the submission of a Job Vacancy Requisition ("JVR") to Workforce Staffing and Development which begins the recruitment process. Please provide the following:

- a. Does MECO also utilize the JVR process in a manner that is substantially similar to HECO? Please explain.
- b. Please generally describe the JVR submission and approval process, as used by MECO.
- c. Does MECO require a JVR before the recruitment and hiring process can begin? Please explain.
- d. As of the most current date in 2007, please provide a listing of all unfilled positions included in the 2007 test year forecast

by department and RA, indicating whether a JVR has or has not been submitted and approved.

**Witness T-13 Mr. Okada.**

CA-IR-177

**Ref: MECO T-13, page 5 - (SUTA Tax Base/Rate for 2007).**

Please provide the following regarding the estimated 2007 SUTA tax rate and base that was used in the Company's filing:

- a. A statement of the State-approved actual base and rate effective for 2007.
- b. A copy of the authority relied upon for your response to part (a) of this information request.

CA-IR-178

**Ref: MECO-WP-1301 - (Payroll Tax Calculations).**

Please provide the following:

- a. Copies of underlying reports and documentation supportive of the "Allocation of Payroll Taxes Based on Labor Dollars Charged on page 2.
- b. A comparative analysis of actual total payroll distribution percentages between Capital, Operations and Other, by NARUC Account, for calendar years 2004, 2005 and 2006.
- c. An explanation of significant changes in the payroll distribution between years, as set forth in your response to part (b) of this information request.
- d. Copies of MECO 2006 Form 941 quarterly reports for comparison to page 3 effective rate calculations.



CA-IR-179

**Ref: MECO-1301 - (Revenue Taxes).**

Please provide calculations of the proposed test year PSC tax, PUC fee and Franchise Royalty revenue tax items at present, current and proposed rates, since supporting calculations of such amounts are not set forth in WP-1301, indicating whether the revenue base in each calculation has properly accounted for the statutory definitions of taxable revenues.

CA-IR-180

**Ref: MECO T-13, page 29, line 15 - (Section 199 Deduction).**

According to the testimony, "MECO has not had the opportunity to recalculate the IRC §199 deduction under present and proposed rates in this direct submission, but the change in the generation allocation in the cost of service study and the additional revenues at proposed rates is expected to generate some IRC §199 deduction. In addition, based on issues raised in the Hawaii Electric Light Company, Inc. Docket No. 05-0315, MECO will review its calculation and potentially revise its computation and estimated impact on revenue requirements at the next opportunity." Please provide the following information:

- a. The Company's best estimate of the MECO § 199 deduction, based upon test year proposed revenue and expense amounts and allocations, assuming MECO income taxes are

calculated on a stand-alone basis (no consolidated HEI return).

- b. Identify and describe any known uncertainties or potential issues with regard to the calculations provided in your response to part (a) of this information request.
- c. State whether MECO objects to reflection of an appropriately calculated Section 199 deduction within test year ratemaking income tax expenses.
- d. If your response to part (c) of this information request is affirmative, explain all bases for such objection and provide supporting documentation for same.

CA-IR-181

**Ref: MECO T-13, page 35, line 9 - (FIN 48 Impacts).**

According to the testimony, "MECO is in the process of evaluating its uncertain tax positions and their impact on the implementation of FIN 48. MECO has not yet quantified the estimated impact, but it is not expected to be material to the financial statements." Please provide the following information:

- a. Describe the status of MECO's evaluation and identify each "uncertain tax position" that is believed to exist.
- b. List and quantify each adjustment to the Company's asserted rate base or income statement that is expected to

ultimately be proposed by MECO with respect to FIN 48, if any.

- c. Provide complete copies of all studies, reports, analyses and other documents associated with your response to part (b) of this information request.

CA-IR-182

**Ref: T-13, page 22, MECO-WP-1305 - (Deferred Tax Balances).**

According to the testimony, "Consistent with prior MECO rate cases, the deferred taxes for items excluded in determining MECO's revenue requirements in prior rate case decisions have been excluded from the deferred tax balance for the test year."

Please provide the following information:

- a. Describe the basis for excluding each listed "Rate Case Adjustment" item at pages 3 and 6 of WP-1305.
- b. For the excluded "Rate Case Adjustment" items that are not simply reversals of the fully sub-account balance listed above on pages 3 and 6 of WP-1305, explain how the amount was derived and provide calculations for same.
- c. State whether any further revisions are needed to these calculations, given HELCO rate case revisions to these calculations in Docket No. 05-0315 and quantify each such adjustment.

d. Explain the rationale for including within rate base each of the following listed Deferred Income Tax balances, indicating where corresponding timing difference accrual balances are included in determining revenue requirements (either by rate base inclusion, working cash inclusion or deferred return calculations):

1. 28312 Prepaid Expenses.
2. 28314 Computer Software Costs.
3. 28317 Electric Disc Trust.
4. 28319 Cap Items Chg.
5. 28312 Conn Fee.
6. 28340 IRP/DSM Costs.
7. 28400 Customer Information System.
8. 28304 Ellipse Software Costs.
9. 28404 Emission Fees Accrued.
10. 28405 Hawaii R&D Credit.
11. 28406 Legal Fees Deferred for Tax.
12. 28408 Oil Spill Cleanup
13. 28409 Project Apprise Costs.

e. Provide an updated MECO-WP-1305, substituting actual balances as of December 31, 2006 and revised estimates of 2007 activity.

- f. Explain the "Rate Case Adjustments" for "AFUDC in CWIP" and "TCI in CWIP", indicating whether these exclusions have been made in previous rate cases and how such amounts were calculated.

CA-IR-183

**Ref: MECO T-13, page 35 - (Changes in Tax Payments - Working Cash Effects).**

Please provide copies of the calculations and the referenced authoritative regulations relied upon to revise the Company's tax payment timing for measurement of Working Cash.

**MECO T-14 Ms. Arase.**

CA-IR-184

**Ref: MECO Plant, CIAC & Advances Exhibits (Updates).**

Please update the following exhibits to incorporate actual 2006 values and MECO's current best estimate for 2007, including supporting documentation:

- a. MECO-1101, MECO-1402 & MECO-1403 (Plant Additions).
- b. MECO-1404 & MECO-WP-1404A (Retirements).
- c. MECO-1405 (Property Held for Future Use).
- d. MECO-1406, MECO-WP-1406A through MECO-WP-1406D (CIAC).
- e. MECO-1407, MECO-WP-1407A & MECO-WP-1407B (Customer Advances).

CA-IR-185

**Ref: MECO-WP-1401B (2007 Plant Additions).**

Please provide a listing of HMCO's current best estimate of plant addition projects expected to be completed and placed in service during 2007, including the following information:

- a. Project number and description.
- b. Actual cumulative expenditures at December 31, 2005, if any.
- c. Actual project expenditures during 2006, if any.
- d. Projected project expenditures during 2007, if any.
- e. Projected completion date for each project.

CA-IR-186

**Ref: MECO-WP-1601A (2006 Plant Additions).**

Please provide a listing of the actual plant addition projects completed and placed in service during 2006, including the following information:

- a. Project number and description.
- b. Actual cumulative expenditures at December 31, 2005, if any.
- c. Actual project expenditures during 2006, if any.
- d. Any straggling expenditures during 2007, if any.
- e. Actual completion date for each project.

CA-IR-187

**Ref: MECO-WP-1601A (2006 Plant Additions).**

With regard to the projects that MECO's original filing expected to be completed and placed in service during 2006, please provide the following:

- a. Please identify each project that was subsequently cancelled or delayed.
- b. Referring to part (a) above, please explain why each project was cancelled or delayed.

CA-IR-188

**Ref: MECO-WP-1401A (2006 Plant Additions).**

Did MECO complete and place in service any construction projects during 2006, which were not actually closed to plant in service as of December 31, 2006? If so, please provide the following:

- a. Project number and description.
- b. Actual cumulative expenditures on each completed project as of December 31, 2006.
- c. The amount of any straggling expenditures made in 2007 for each project.
- d. The date on which MECO stopped accruing AFUDC on each identified project.
- e. The date on which MECO commenced recording depreciation expense on each identified project.
- f. An explanation as to why each identified project was not closed to plant in service as of December 31, 2006.

CA-IR-189

**Ref: MECO-WP-1601A (2006 Plant Additions, CIAC & Customer Advances).**

For each project completed during 2006 that involve related CIAC or customer advances, please provide the following:

- a. Please provide each project number and description.
- b. Please provide the amount of any CIAC or customer advance associated with each project, indicating whether the amounts are actual or estimated values.



- c. Referring to part (b) above, please provide the amount of any CIAC or customer advances actually collected and recorded as of December 31, 2006.
- d. Referring to part (b) above, please provide the amount of any CIAC or customer advances to be collected and recorded in 2007, indicating whether the identified amount has been collected or is yet to be collected in 2007.
- e. Referring to part (b) above, please provide the amount of any CIAC or customer advances that are expected to be collected and recorded in 2008.

CA-IR-190

**Ref: MECO-WP-1601B (2007 Plant Additions, CIAC & Customer Advances).**

For each project completed or expected to be completed during 2007 that involve related CIAC or customer advances, please provide the following:

- a. Please provide each project number and description.
- b. Please provide the amount of any CIAC or customer advance associated with each project, indicating whether the amounts are actual or estimated values.
- c. Referring to part (b) above, please provide the amount of any CIAC or customer advances actually collected and recorded as of December 31, 2006.

- d. Referring to part (b) above, please provide the amount of any CIAC or customer advances to be collected and recorded in 2007, indicating whether the identified amount has been collected or is yet to be collected in 2007.
- e. Referring to part (b) above, please provide the amount of any CIAC or customer advances that are expected to be collected and recorded in 2008.

**MECO T-18 Mr. Young.**

CA-IR-191

**Ref: MECO T-18, pages 19-27 - (Power Factor Costs/Prices).**

In recent HECO and HELCO rate proceedings, the Company was unable to provide cost support for its power factor rate elements and has committed to perform studies to identify and quantify relevant costs for this tariff element. Please provide the following:

- a. Copies of reports, analyses, workpapers, projections and other documentation associated with all work done with regard to this issue for MECO, if any.
- b. A detailed statement of all work planned to complete the referenced study, indicating any contractors to be employed, employees to be assigned, and specific tasks anticipated to be involved in the completion of this work.
- c. What is the Company's estimate of the timeline, milestones and completion date for the study of power factor cost of service issues for MECO and the HELCO systems?

CA-IR-192

**Ref: HECO T-18, page 19, line 14; MECO-1812 - (System Loss Analysis).**

Please provide a complete copy of the referenced "System Loss Analysis" and underlying workpapers for test year energy and demand loss rates, indicating where the results of such studies are reflected in MECO-WP-1802 and where the results are used in specific rate design proposals.

CA-IR-193

**Ref: HECO T-18, page 16 - (Low Income Program).**

According to the testimony, "The Company plans to develop a program to address the issues of low income residential ratepayers, and plans to introduce its proposals subsequently in this case."

Please provide the following information:

- a. Describe all work performed by the Company to-date to evaluate the issues of low income residential ratepayers, indicating alternative proposals that were considered and identifying any studies, reports, analyses, projections and other documents that were produced.
- b. Provide copies of the documents referenced in your response to part (a) of this information request.
- c. State in as much detail as possible and quantify each element of the Company's planned low income program(s).

CA-IR-194

**Ref: T-18, page 24, line 18 - (Schedule H Closure).**

According to the witness, "MECO would like to close Schedule H to new customers in order to plan for a transition for the existing Schedule H customers." Please provide the following:

- a. Explain whether MECO believes that it has submitted any cost support for allowing existing Schedule H customers to remain on that rate.

- b. If your response to part (a) of this information request is affirmative, please provide complete copies of all studies, reports, and other information indicative of cost justification for continued service under Schedule H.
- c. If your response to part (a) of this information request is negative, please explain whether closing the rate is expected to be effective in migrating Schedule H customers onto other rates schedules, indicating the expected future date when the rate might be discontinued.
- d. Please explain whether MECO would support Schedule H rate or tariff changes that might induce customers now on Schedule H to elect to migrate to Schedules G or J.
- e. What would be the estimated current monthly bill impact upon a Schedule H customer with average usage characteristics if Schedule H were withdrawn and the customer was billed on either Schedule G or Schedule J at currently effective rates?

CA-IR-195

**Ref: T-18, page 9, Distribution Facilities – Customer Component.**

According to Mr. Young's testimony, "The distribution lines and transformers are assigned to demand and customer components, since the size and costs of these facilities are dependent not only on the customers' load, but also on the type and location of the

customers." Please provide complete copies of MECO distribution engineering manuals, instructions, guidelines and all other documents that are used to define how MECO distribution facilities are sized and designed to meet the types, locations and anticipated load levels of customers under alternative circumstances.

CA-IR-196

**Ref: T-18, page 9, Distribution Facilities - Customer Component.**

Please provide the following information:

- a. Detailed calculations associated with the minimum system and/or zero intercept studies that were relied upon to determine the portion of distribution facilities classified as customer-related in the Company's cost of service study.
- b. Describe the minimum sized distribution pole that was used by MECO to determine its customer component weighting for the distribution poles account.
- c. Explain whether any poles shorter than the assumed minimum sized pose have been installed by MECO since 1982.
- d. Provide a complete statement of MECO's policy with regard to distribution pole placement and sizing, under representative frequently encountered typical conditions of pole initial installation or replacement.

- e. If the response to part (c) of this information request is affirmative, please provide the dates and numbers of such pole installations.
- f. What approximate percentage of pole installations in a representative year are replacements of existing poles, rather than new pole line construction.
- g. Describe the assumed minimum sized facility for OH primary and OH secondary conductor.
- h. Provide a complete statement of MECO's policy with regard to distribution overhead primary conductor placement and sizing, under representative frequently encountered typical conditions of overhead pole line initial installation or replacement.
- i. Provide a complete statement of MECO's policy with regard to distribution overhead secondary conductor placement and sizing, under representative frequently encountered typical conditions of overhead pole line initial installation or replacement.
- j. Approximately how many individual residential customers within single family detached homes, using average test year demand levels of single phase service, could be served by the specified minimum system primary overhead conductor?

- k. Approximately how many individual residential customers within separately metered apartments, using average test year demand levels of single phase service, could be served by the specified primary overhead conductor?
- l. Approximately how many individual residential customers within single family detached homes, using average test year demand levels of single phase service, could be served by the specified minimum system secondary overhead conductor?
- m. Approximately how many individual residential customers within separately metered apartments, using average test year demand levels of single phase service, could be served by the specified secondary overhead conductor?
- n. Describe the minimum sized underground primary and secondary conductor that was used by MECO to determine its customer component weighting for the underground conductors.
- o. Provide a complete statement of MECO's policy with regard to underground primary and secondary conductor placement and sizing, under representative frequently encountered typical conditions of pole initial installation or replacement.
- p. Approximately how many individual residential customers within single family detached homes, using average test year



demand levels of single phase service, could be served by the specified minimum-sized underground primary conductor?

- q. Approximately how many individual residential customers within separately metered apartments, using average test year demand levels of single phase service, could be served by the specified minimum-sized underground primary conductor?
- r. Approximately how many individual residential customers within single family detached homes, using average test year demand levels of single phase service, could be served by the specified minimum-sized underground secondary underground secondary conductor?
- s. Approximately how many individual residential customers within separately metered apartments, using average test year demand levels of single phase service, could be served by the specified minimum-sized underground secondary conductor?
- t. Describe the minimum sized overhead and padmount distribution transformer that was used by MECO to determine its customer component weighting for the underground conductors.

- u. Provide a complete statement of MECO's policy with regard to distribution transformer placement and sizing, under representative frequently encountered typical conditions of initial installation or replacement.
- v. Approximately how many individual residential customers within single family detached homes, using average test year demand levels of single phase service, could be served by the specified minimum-sized overhead transformer?
- w. Approximately how many individual residential customers within single family detached homes, using average test year demand levels of single phase service, could be served by a the specified minimum-sized padmount transformer?
- x. Has MECO installed any transformers smaller than the specified minimum-sized overhead or padmount transformers since 1984?
- y. If your response to part (x) of this information request is affirmative, please provide detailed information by vintage year of installed units and costs for each category of installations (overhead, padmount, 1/3 phase).
- z. If your response to part (x) of this information request is affirmative, please explain why smaller sized transformers were not used as part of the Company's assumed minimum sized system.

CA-IR-197

**Ref: MECO-1813, Marginal Cost of Service Study.**

Please provide a complete copy of the Company's most recently performed Marginal Cost Study, including supporting workpapers for all marginal cost study results reflected in MECO-1813, including electronic excel files for all such data.

**MECO T-19 Mr. Hee**

CA-IR-198

**Ref: T-19, page 9, lines 5 – 13.**

The referenced testimony indicates that the fuel expenses from the CHP unit at Manele Bay will be included in the DG component of MECO's Lanai Division ECAC calculation, if it is approved by the Commission.

- a. When does MECO expect to receive approval from the Commission of the Manele Bay CHP unit?
- b. Please provide capacity, energy and cost information for the Manele Bay CHP project.
- c. Please explain how the Manele Bay CHP unit costs will be calculated and included in the Lanai Division ECAC.

**CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing **DIVISION OF CONSUMER ADVOCACY'S THIRD SUBMISSIONS OF INFORMATION REQUESTS** was duly served upon the following parties, by personal service, hand delivery, and/or U.S. mail, postage prepaid, and properly addressed pursuant to HAR § 6-61-21(d).

EDWARD L. REINHARDT  
PRESIDENT  
MAUI ELECTRIC COMPANY, LIMITED  
P. O. Box 398  
Kahului, Hawaii 96733-6898

1 copy  
by U.S. mail

DEAN K. MATSUURA  
DIRECTOR - REGULATORY AFFAIRS  
HAWAIIAN ELECTRIC COMPANY, INC.  
P. O. Box 2750  
Honolulu, Hawaii 96840-0001

1 copy  
by hand delivery

PETER Y. KIKUTA, ESQ.  
GOODSILL, ANDERSON, QUINN & STIFEL  
1800 Alii Place  
1099 Alakea Street  
Honolulu, Hawaii 96813

1 copy  
by hand delivery

Counsel for Maui Electric Company, Limited

DATED: Honolulu, Hawaii, June 22, 2007.

A handwritten signature in cursive script, appearing to read "Cynthia Saludar", is written over a horizontal line.